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FIELD INVESTIGATION SUMMARY REPORT, MAY 2012 REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) OVERSIGHT R&H OIL/TROPICANA ENERGY SUPERFUND SITE, SAN ANTONIO, TEXAS

This Field Investigation Summary Report summarizes activities at the R&H Oil/Tropicana Energy Superfund Site (the Site) on 7, 8, 9, and 10 May 2012. It includes an Introduction followed by discussions of health and safety issues, weather conditions, site activities, and a list of references.

INTRODUCTION

Under the direction of the U.S. Environmental Protection Agency (EPA), EA Engineering, Science, and Technology, Inc. (EA) oversaw ground water investigatory activities conducted by the Potentially Responsible Parties' (PRP) consultant Pastor, Behling, & Wheeler, LLC (PBW).

Participants included:

- Mr. Chris Villarreal, EPA Task Order Monitor
- Mr. Ruben Moya, EPA Drilling Oversight
- Mr. Kent Shewmake, EPA Drilling Oversight
- Ms. Teri McMillan, EA Geologist
- Mr. Jose Flores, EA Field Scientist
- Mr. Tim Nickels, PBW, PRP Environmental Consultant
- Mr. John Brayton, PBW Representative, PRP Environmental Consultant
- Mr. Robert Joiner and crew, Vortex Drilling, Inc., Drilling Services.

EA performed field activities in accordance with the following EPA-approved plans:

- RI/FS Oversight Work Plan (EA 2011a)
- Health and Safety Plan (EA 2011b).

This Field Activity Report reports on the following field activities:

- Drilling, installing, and developing two monitoring wells and two soil gas points
- Soil, gas, and ground water sampling efforts.

HEALTH AND SAFETY

Prior to field activities, a health and safety meeting was conducted each day. The traffic control plan was implemented during the installation of the monitoring wells.

September 2012

WEATHER CONDITIONS

On 7 May 2012, the temperature ranged from 67 to 91 degrees Fahrenheit (°F), with overcast skies. Winds were light and from the south and east. On 8 May 2012, following an overnight cool front that moved through, the temperature was 63 to 71°F, with scattered thunderstorms producing rain throughout the day and winds out of the north. On 9 May 2012, the temperature was between 61 to 83°F, with cloudy skies and light winds from the north. On 10 May 2012, the temperature ranged from 64 to 77°F, with gusty varied winds and thunderstorms and rain followed by cloudy skies in the afternoon.

SITE ACTIVITIES

Between 7 and 10 May 2012, EA provided oversight on the installation of two monitoring wells and two soil gas points. EA also oversaw the collection of soil vapor samples as well as water sampling for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals. The following paragraphs summarize events noted in the field. More details may be found in the daily field reports in Attachment 1, and in the Field Logbook in Attachment 2. Photographs taken at the site may be found in Attachment 3. A well location map including sample locations may be found in Attachment 4. A copy of the chain-of-custody documentation is in Attachment 5. A summary of the air data as collected by EA and analyzed by the EPA Region 6 Lab in Houston may be found in Attachment 6. The water and soil lab reports provided by the PRP's lab, TestAmerica, may be found in Attachment 7 (only on compact disc [CD]). The water and soil lab reports provided through the EPA Contract Laboratory Program may be found in Attachment 8 (only on CD). A comparison of lab data analysis results between the two labs, listed as Tables 1 through 4, is located in Attachment 9. The Data Evaluation Summary Report is in Attachment 10.

Well Drilling and Soil Boring

EA performed oversight of PBW's installation of two monitoring wells (MW-21 and MW-22) using a Geoprobe[®] to push to the total depth of the boring while collecting soil core samples in acetate sleeves for logging. Utilities were cleared using a jet vac prior to installation. MW-21 was installed on the north side of Fitch Street, east of Somerset Road, between MW-9 and MW-10. MW-22 was installed on the north side of Milvid Avenue, east of Somerset Road, between MW-7 and MW-8. The boring for MW-21 was advanced to a total depth of 23 feet below ground surface (bgs), and for MW-22, the boring was advanced to a total depth of 25 feet bgs. The wells were cased with 2-inch polyvinyl chloride (PVC) flush threaded casing with 15 feet of machine slotted 0.010-inch screen. Filter pack, 10/20 silica sand, was placed to 2 feet above the screen followed by bentonite hole plug to 2-feet bgs. Well vaults and concrete pads were installed. Although the inside surfaces and augers of the Geoprobe[®] were cleaned between borings, the outside surfaces of the Geoprobe[®] rods were not cleaned between borings.

Wells were developed using Watterra tubing, foot valve, and surge block. Wells were developed until field parameters (pH, temperature, Redox, oxygen, specific conductance, and turbidity) stabilized.

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PBW also installed two soil gas points (SG-21 and SG-22) using the Geoprobe[®]. SG-21 was installed on the north side of Fitch Street, east of Somerset Road and west of MW-21. SG-22 was installed on the north side of Milvid Avenue, east of Somerset and east of MW-22. The Geoprobe[®] rods were advanced to 5 feet bgs, the soil core was retrieved, and the soil gas implant was installed. The soil gas implant was placed on the bottom of each borehole, contrary to the Sampling and Analysis Plan which specified installation of the implant 6-inches above the base of the borehole.

Sampling - Soil Gas Sampling

Soil gas samples were collected at MW-21 and MW-22. Photo ionization detector (PID) measurements ranged from 23.9 parts per million by volume (ppmv) at 19 to 20 feet bgs to 3,651 ppmv at 11 to 12 feet bgs at MW-21. At MW-22, PID measurements ranged from 0.1 ppmv at 10 to 12.5 feet bgs to 35.4 ppmv at 16-17 feet bgs. The core samples were logged and field screened at various intervals, and three soil samples were collected for lab analysis. EA collected additional soil samples from the field screened intervals for EPA to analyze using their portable laboratory equipment, the HAPSITE Field GC/MS.

Due to the tightness of the clay soil, obtaining vapor samples from SG-21 and SG-22 was difficult. After PBW attempted but failed to collect a sample at SG-21, EA was able to obtain a full 6-liter summa canister sample on SG-21, but could not fill a Tedlar® bag. PBW could not purge SG-22, so EA tried and was able to obtain a partial sample until a leak from the top of the summa canister was found. It was noted at this point that a leak also existed at the top of the summa canister used for SG-21. The connection on top of the summa canister was modified, and EA verified that the connection was tight.

EPA originally requested vapor samples from all soil gas points, but following PBW's suggestions that due to the tightness of the soil that only certain soil gas points could be productive, EPA requested only the following soil gas points be sampled: SG-19 – Summa canister (with duplicate) for lab analysis and Tedlar® bag for HAPSITE Field GC/MS; and SG-13, SG-16, SG-17, and SG-20 for only a Tedlar® bag for HAPSITE Field GC/MS. EA was able to collect all samples except for SG-16 and SG-17 where the soil was too tight.

EA collected a sub-slab vapor sample from SS-2 (in the on-site building), but was unsuccessful in collecting vapor samples from SG-14 (because the soil was too tight) and from SG-15 (because the point was damaged). PBW was unsuccessful in collecting sub-slab vapor samples from SS-2 and SG-14.

No equipment rinsate was collected since all ground water sampling equipment was dedicated (with the exception of the water level indicator).

September 2012

Sampling - Ground Water

PBW gauged all wells associated with the site, starting with onsite wells that did not contain product, followed by offsite wells, and finishing with onsite wells that were known to have non-aqueous phase liquid.

EA collected and split ground water samples from the following wells for lab analysis of VOCs and EPA HAPSITE Field GC/MS: MW-04 (MW-04 duplicate), MW-09, MW-19, MW-20, MW-21 (MW-21 duplicate), and MW-22. MW-18 was collected for VOCs and EPA HAPSITE Field GC/MS, as well as SVOCs. EA also collected field blanks (FB-1 and FB-2) for lab analysis of VOCs.

PBW purged wells and collected ground water samples using a peristaltic pump. PBW installed new, dedicated sampling tubing in MW-21 and MW-22. Prior to purging, the sample tubing was raised so that the intake was 2 feet above the bottom of the well, and a water level indicator was used to gauge the depth to water during pumping. During purging, the flow rate, parameters, and water levels were measured three times. According to PBW's Standard Operating Procedures included in the Field Sampling Plan (PBW 2010), parameters should be stable prior to sampling. Wells were developed until field parameters stabilized.

EA collected split ground water samples as follows: MW-14, MW-16, MW-17, and MW-18 were sampled for lab analysis of VOCs, SVOCs, and metals.

Split samples were sent to two labs. The samples EA took were shipped via FedEx to the EPA Region 6 Lab in Houston, Texas. The PBW samples were shipped to the private lab TestAmerica, also in Houston, Texas. Copies of the chain-of-custody documentation for both labs are in Attachment 5. The water and soil lab reports provided by the PRP's lab, TestAmerica, may be found in Attachment 7. The water and soil lab reports provided by EA's lab, the EPA Region 6 lab in Houston, may be found in Attachment 8.

EA computed the relative percent difference (RPD) between the EPA lab and the PRP labs split sample results (Table 1 of Attachment 9). Due to significant differences in reporting limits between the EPA and PRP labs, RPDs were only computed on detected results. The RPD was computed using the following formula:

RPD = <u>Absolute value of difference between results of two laboratories</u> x 100% Average of results of two laboratories

A determination of adequate agreement between the EPA lab and the PRP lab results was conducted by comparing the RPD of each analyte to the maximum acceptable RPD of 50% established in the discussion of Data Quality Objectives in EA's Sampling and Analysis Plan (EA 2011c). The results of this determination are presented in Table 2 of Attachment 9. The table shows that the following three analytes have an RPD greater than 50%:

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- 1. Copper
- 2. Zinc
- 3. Phenol.

The high RPD for copper and zinc is due to the inclusion of estimated values below the reporting limit or Contract Required Quantitation Limits and so even though the RPD values do not provide quantification of agreement, there is still a qualitative indication of agreement between the labs. The high RPD for phenol is based on data that is confirmed by multiple analyses in the EPA lab, so it is not clear why there would be a wide variation between PRP data and EPA data for phenol. Both the EPA split samples and PRP samples confirm that the phenol concentrations in ground water are below the TCEQ ground water screening level of 7,300 micrograms per liter $(\mu g/L)$ identified in the PRP QAPP and the EPA tap water RSL of 4,500 $\mu g/L$.

On the whole, however, the two data sets show acceptable agreement between split sample results. The issue of the phenol RPD is considered in more detail in Attachment 10, Data Evaluation Summary Report.

Field Sampling Plan Deviations

The following is a summary of deviations from the PBW Field Sampling Plan (PBW 2010) noted by EA personnel during oversight of PBW. Additional information can be found in the Daily Field Reports and Field Logbook (Attachments 1 and 2, respectively).

- While PBW usually collects filtered and unfiltered samples for sampling metals, PBW only collected unfiltered samples during this event
- On MW-18, PBW did not collect three consecutive turbidity measurements that were stabilized prior to sampling.

REFERENCES

- EA Engineering, Science, and Technology, Inc. (EA). 2011a. Remedial Investigation / Feasibility Study Oversight Work Plan. R&H Oil/Tropicana Energy Superfund Site. San Antonio, Bexar County, Texas. April.
- EA. 2011b. Health and Safety Plan. R&H Oil/Tropicana Energy Superfund Site. San Antonio, Bexar County, Texas. May.
- EA. 2011c. Sampling and Analysis Plan. R&H Oil/Tropicana Energy Superfund Site. San Antonio, Bexar County, Texas. June.
- Pastor, Behling & Wheeler, LLC. 2010. Field Sampling Plan. R&H Oil/Tropicana Energy Superfund Site. San Antonio, Bexar County, Texas. September.

EA Project No.: 14342.74 September 2012

ATTACHMENT 1 DAILY FIELD REPORTS

DAILY FIELD ACTIVITIES SUMMARY REPORT				
PROJECT NAME: R&H Oil/Tropicana Energy Site, San Antonio, Texas			, Texas	
Date: 05/07/12	Shift Beginning: 7:00 ho	urs	Shift Ending: 18:30 hours	
RAC II Contract No	o.: EP-W-06-004		Task Order No.: 0074	
EPA Region 6 TON	M: Chris Villarreal		Project Manager: Ted Telisak	
Design Manager: N	N/A		Site Geologist: Teri McMillan	
Design Engineer: N	N/A		Site Engineer: N/A	
Personnel on site	Name	Affiliation	Reason for being on site	
EA:	Teri McMillan Jose Flores	EA	Drilling Oversight	
PRP Contractors:	Robert Joiner And Crew	Vortex	Driller	
Other:	Chris Villarreal Ruben Moya Kent Shewmake Tim Nickels Don	EPA EPA EPA PBW PBW	Drilling Oversight Drilling Oversight Drilling Oversight PRP Environmental Consultant PRP Environmental Consultant	

Work Performed

Pastor, Behling & Wheeler, LLC (PBW) is the environmental consultant that is conducting the remedial investigation field activities. EA is providing oversight of field activities on behalf of EPA.

EA oversaw PBW as they installed two monitoring wells (MW-21 and MW-22) and two soil gas points (SG-21 and SG-22) using a Geoprobe®. Prior to field activities, a health and safety meeting was conducted, the traffic plan was implemented, asphalt was cut, and utilities cleared by a jet vac.

Wells were installed by first pushing Geoprobe® rods to the total depth of the boring and collecting soil core in acetate sleeves. The core samples were logged, field screened at various intervals and three soil samples were collected for laboratory analysis. EA collected soil samples from field screened intervals for EPA to analyze using their mobile lab. After soil core samples were collected, then 6-inch outside diameter augers were attached to the Geoprobe® and borings were advanced to a total depth of 23 feet below ground surface (bgs) for MW-21 and 25 feet bgs for MW-22. The augers were removed and well casing was placed in the boreholes. Well casing consisted of 2-inch PVC flush threaded casing with 15 feet of machine slotted 0.010-inch screen. Filter pack, 10/20 silica sand, was placed to two feet above the screen followed by bentonite hole plug to 2-feet bgs. Well vaults were then placed over the wells and the vaults were set in concrete pads.

It should be noted the outside surfaces of the Geoprobe® rods were not cleaned after use at well MW-21 prior to use at well MW-22. The insides of the rods were cleaned and the augers were cleaned after use at well MW-21 and prior to use at well MW-22.

Soil samples collected and field screened from boring MW-21had PID measurements that ranged from 23.8 ppmv at 19-20 feet bgs to 3,651 ppmv at 11to 12 feet bgs. PID measurements from boring MW-22 ranged from 0.1 ppmv at 10 to 12.5 feet bgs to 35.4 ppmv at 16 to 17 feet bgs.

The soil gas points were installed using the Geoprobe®. The Geoprobe® rods were advanced to 5-feet bgs, soil core retrieved, and the soil gas implant installed. The implant was not installed as outlined in PBW's Sampling and Analysis Plan (SAP), September 2010. The soil gas implant was not placed 6-inches above the base of the borehole. Instead the probe was placed on the bottom of the borehole.

At the end of the day, EPA provided EA with a list of monitoring wells where split groundwater samples

DAILY FIELD ACTIVITIES SUMMARY REPORT

should be collected. In addition, EPA requested that vapor samples be collected at five locations. Upon discussion with PBW it was noted that two of the monitoring wells on the list were NAPL wells and they would not be sampled. EPA was contacted and the NAPL wells were removed from the sampling list and two wells were substituted.

EA went to FedEx to retrieve summa canisters that were shipped from the EPA Laboratory.

Anticipated Activities for the Following Day

PBW will develop monitoring wells and collect vapor samples from soil gas points, SG-21 and SG-22. EA will provide oversight, collect vapor samples from SG-21 and SG-22 and possibly three additional soil gas points.

Report prepared by (name and date)

Teri McMillan 5/7/12

DAILY FIELD ACTIVITIES SUMMARY REPORT				
PROJECT NAME:	R&H Oil/Tropicana Energ	gy Site, San Antonio	, Texas	
Date: 05/08/12	Shift Beginning: 9:30 ho	urs	Shift Ending: 18:30 hours	
RAC II Contract No	o.: EP-W-06-004		Task Order No.: 0074	
EPA Region 6 TON	M: Chris Villarreal		Project Manager: Ted Telisak	
Design Manager: N	N/A		Site Geologist: Teri McMillan	
Design Engineer: N	Design Engineer: N/A		Site Engineer: N/A	
Personnel on site	Name	Affiliation	Reason for being on site	
EA:	Teri McMillan Jose Flores	EA	Development and Sampling Oversight	
Subcontractors:	None			
Other:	Tim Nickels John Brayton	PBW PBW	Environmental Consultant Environmental Consultant	

Work Performed

Pastor, Behling & Wheeler, LLC (PBW) is the environmental consultant that is conducting the remedial investigation field activities. EA is providing oversight of field activities on behalf of EPA.

Weather today consisted of heavy rain showers from 1030 to approximately 1300, when rain showers lightened. EA oversaw PBW as they developed well MW-21. Well MW-22 was developed by PBW while EA was collecting soil vapor samples. Wells were developed using Watterra tubing, foot valve and surge block. Wells were developed until field parameters stabilized.

Once rain showers lightened at 1345, vapor sampling began. PBW began by attempting to obtain a vapor sample and duplicate from SG-21. During drilling activities conducted the previous day, it was noted that soil collected from SG-21 consisted of clay and appeared very tight. As a result, PBW had difficulty purging the vapor tubing at SG-21. The summa canister (1 liter) used by PBW to sample SG-21 had an initial vacuum of 29 inches Hg, after 20 minutes connected to soil gas point SG-21 it had a final vacuum of 22 inches of Hg. EA attempted to obtain a vapor sample from SG-21. The summa canister (6 liter) filled, but EA could not fully fill a tedlar bag. PBW then attempted to obtain a vapor sample from SG-22. PBW could not purge the soil gas point, and the summa canister did not change from its initial measurement after approximately 15 minutes attached to SG-22. EA then tried to obtain a vapor sample from SG-22. The summa canister began to fill; however, it was noted that there appeared to be a leak from the connection at the top of the summa canister. EA then tried to fill a tedlar bag from SG-22, but was unsuccessful. Upon assessing the canister connections it appeared that there may have been a leak at the connection on top of the summa canister used at SG-21, as well. The connection on top of the summa canister was modified, and EA verified that the connection was tight. A sub-slab vapor sample was then obtained from SS- 2 located in the on-site building. EA tried to obtain a vapor sample from SG-14; however, the soil was too tight and no sample could be collected. A vapor sample was to be collected from SG-15; however the point was damaged and no sample could be collected.

EA called Chris Villarreal to update him.

Anticipated Activities for the Following Day

PBW will gauge all wells, and begin ground water sampling. EA will split ground water samples from ten select monitoring wells. Possibly collect vapor samples from MW-21 and MW-22.

Report prepared by (name and date)

Teri McMillan 5/8/12

DAILY FIELD ACTIVITIES SUMMARY REPORT				
PROJECT NAME: R&H Oil/Tropicana Energy Site, San Antonio, Texas			, Texas	
Date: 05/09/12	Shift Beginning: 7:00 ho	urs	Shift Ending: 19:29 hours	
RAC II Contract No	o.: EP-W-06-004		Task Order No.: 0074	
EPA Region 6 TON	1: Chris Villarreal		Project Manager: Ted Telisak	
Design Manager: N	J/A		Site Geologist: Teri McMillan	
Design Engineer: N	V/A		Site Engineer: N/A	
Personnel on site	Name	Affiliation	Reason for being on site	
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EA:	Teri McMillan Jose Flores	EA	Sampling Oversight	
	Teri McMillan			
EA:	Teri McMillan Jose Flores			

Work Performed

Pastor, Behling & Wheeler, LLC (PBW) is the environmental consultant that is conducting the remedial investigation field activities. EA is providing oversight of field activities and splitting samples on behalf of EPA.

EA oversaw PBW gauging water levels and product levels in all wells associated with the Site. PBW gauged on-site wells that did not contain product first, then moved off-site and gauged all off-site wells. Then PBW gauged all on-site wells that had NAPL.

EA collected split ground water samples from the following wells:

MW-04 – collected samples for laboratory analysis of volatile organic compounds (VOCs) and EPA HAPSITE Field GC/MS – duplicate was collected

MW-20 – collected samples for laboratory analysis of VOCs and HAPSITE Field GC/MS

MW-09- collected samples for laboratory analysis of VOCs and HAPSITE Field GC/MS

MW-21- collected samples for laboratory analysis of VOCs and HAPSITE Field GC/MS

MW-22 – collected samples for laboratory analysis of VOCs and HAPSITE Field GC/MS

MW-18– collected samples for laboratory analysis of VOCs, semi-volatile organic compounds (SVOCs), metals and HAPSITE Field GC/MS

In addition, EA collected a field blank - FB-1 for laboratory analysis of VOCs.

PBW purged wells and collected ground water samples using a peristaltic pump, and dedicated tubing that was previously installed in the wells. New sampling tubing was installed in the two new wells MW-21 and MW-22. Prior to purging, the sample tubing is pulled up so that the intake is 2 feet above the bottom of well. All equipment (peristaltic pump, flow through cell, and meters) are placed on the floor inside the PBW pickup. A water level indicator is used to gauge the depth to water during pumping. During purging the flow rate, parameters (pH, specific conductance, temperature, Redox, oxygen, and turbidity) and water levels are measured three times. The first reading is taken approximately 10 minutes from initiating pumping. According to PBW's SOP, parameters should be stable prior to sampling.

The following are deviations from the PBW Sampling and Analysis Plan (SAP) September 2010:

PBW was going to use a filter when sampling metals. EA reminded them that the letter from EPA said filters could be used but they were to collect an unfiltered sample as well. John Brayton with PBW, called

DAILY FIELD ACTIVITIES SUMMARY REPORT

Tim Nickels to confirm this. Tim confirmed that the samples should be collected unfiltered and that they usually collect both unfiltered and filtered. This time they will only collect unfiltered.

On well MW-18, PBW did not collect three consecutive turbidity measurements that were within +/- 10 percent (or less than 10 NTUs) prior to sampling. This was noted in EA's field notes and EA planned to inform the TOM the next day.

Chris Villarreal wanted EA to collect additional vapor samples from soil gas points. Tim Nickels checked all on-site soil gas points to see if soil gas could be pulled through them. Tim listed which wells he thought EA could sample and the wells that we might be able to sample. Chris was contacted and he selected the following soil gas points to sample:

SG-19 – Summa canister, duplicate for laboratory analysis and tedlar bag for HAPSITE Field GC/MS

SG-13 – Tedlar bag for HAPSITE Field GC/MS

SG-16 – Tedlar bag for HAPSITE Field GC/MS

SG-17 – Tedlar bag for HAPSITE Field GC/MS

SG-20 – Tedlar bag for HAPSITE Field GC/MS

EA was able to collect soil gas samples from SG-19, SG-13 and SG-20. Soil gas points SG-16 and SG-17 were too tight and no sample could be collected.

It was also discussed with Chris whether we needed to collect an equipment rinsate. It was decided that no equipment rinsate would be collected since all ground water sampling equipment was dedicated, except for the water level indicator.

Anticipated Activities for the Following Day

EA will split ground water samples from remaining four select monitoring wells.

Report prepared by (name and date)

Teri McMillan 5/9/12

DAILY FIELD ACTIVITIES SUMMARY REPORT				
PROJECT NAME: R&H Oil/Tropicana Energy Site, San Antonio, Texas				
Date: 05/10/12	Shift Beginning: 6:58 ho	urs	Shift Ending: 20:30 hours	
RAC II Contract No	o.: EP-W-06-004		Task Order No.: 0074	
EPA Region 6 TON	1: Chris Villarreal		Project Manager: Ted Telisak	
Design Manager: N	J/A		Site Geologist: Teri McMillan	
Design Engineer: N	V/A		Site Engineer: N/A	
Personnel on site	Name	Affiliation	Reason for being on site	
EA:	Teri McMillan Jose Flores	EA	Sampling Oversight	
Subcontractors:	None			
Other:	John Brayton	PBW	Environmental Consultant	

Work Performed

Pastor, Behling & Wheeler, LLC (PBW) is the environmental consultant that is conducting the remedial investigation field activities. EA is providing oversight of field activities and splitting samples on behalf of EPA.

Today it rained – ground water samples were collected under a canopy.

EA collected split ground water samples from the following wells:

MW-16 – collected samples for laboratory analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals

MW-14 – collected samples for laboratory analysis of VOCs, SVOCs, and metals

MW-19- collected samples for laboratory analysis of VOCs

MW-17- collected samples for laboratory analysis of VOCs, SVOCs, and metals

In addition, EA collected a field blank - FB-2 for laboratory analysis of VOCs.

PBW purged wells and collected ground water samples using a peristaltic pump, and dedicated tubing that was previously installed in the wells. Prior to purging, the sample tubing is pulled up so that the intake is 2 feet above the bottom of well. All equipment (peristaltic pump, flow through cell, and meters) are placed on the floor inside the PBW pickup. A water level indicator or interface probe was used to gauge the depth to water during pumping. During purging the flow rate, parameters (pH, specific conductance, temperature, Redox, oxygen, and turbidity) and water levels are measured three times. The first reading is taken approximately 10 minutes from initiating pumping.

EA was off-site at 1310.

EA then prepared samples for shipping and shipped them to the CLP lab via FedEx.

Anticipated Activities for the Following Day

Ship vapor samples to EPA Laboratory and travel home.

Report prepared by (name and date)

Teri McMillan 5/10/12

EA Project No.: 14342.74 September 2012

ATTACHMENT 2

FIELD LOGBOOKS





ALL-WEATHER ENVIRONMENTAL FIELD BOOK

The
Address 405 S. HWY 121 Bypass C-100 Lewisville Tx 75067
Phone 972-3/5-3922
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This book is printed on "Rite in the Rain" All-Weather Writing Paper - A unique paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

Specifications for this book:

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153 Soil Classification

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and Teri McMillan (TM)	
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Partly Cloudy, Carl, 80 F.	-
0735 Tim Nilves with Postar, Behling &	
Wheeler, UC (PBW).	
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16-7' Submitted by PRP to lab (4-50)	
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	1

Location Bexar Co. Jan Antorios TK Date 507-2012 Project / Client REHO! / Tropicana Energychopertural Site Over sight - Monitor Well and Soil Vapor Point hilling Submitted by PRP for lab scaple. 19-20 Well burn for MW-21 completed. Dollers 1015 will have have hole open with coming groves later this morning Setup for 56-21 1016 Drillers started breaking asphalt (approxi) 5' (ii) of MW-21 and 3'(5) of muig) 1017 for SG-21 - So! Goo port occation. Collected Hold Snews Drillers hammening down 1026 TO-5' 4-5' Sand notalled Stampss steel propert and tuding I down and part. Soil good good SG-21 installed. 1043 Drillers have well coming for mw-21 1043 Drillers Set coming. 1045 Started powing and and bentite 1046 (com Set Tro has addomed 1052 intornation regarding well construction PBW breaking to lunch. 1126 1128 EA breaking of ato for lunch. 1228 GA arrived back on site. Jose Jan 5-07-612

Location Dexarlo Jan Anterior, Tx Date 5-07-2012 Project / Client R&HO! / Tropicano Energy Supertur S. to Oversight - Monter Well and Soil Report Brit Dilling Duller Solling up on Mw 22 on 1300 Drillers bearing asphalt for sail gas 1307 Drillers Started brending as ghalt (MW-22. PBW installed Solvago- point into First hole (1300). Drillers General to 5 bgs. Agarax I'd sand added suc 4-5 Sond. 1316 SG-22 + Soil gas port location Zocatel 3 Not NW-8. SG-22 - Soil Somple collected for field sweenings See Sield date shout for additional intermition Drillers cleaning hole to 5' with and anywater Emple for whither price to dalling geoprobing for law-22. 1332 Setup on MW - 27 for geoprobusg. 1338 Stanted geopology. Dollers used 1339 roda) that were used to collecte SC-22 So: 1 Sample - (No days detween 5-07-2012

Location Bexan Co: Canthitenso TK Date 5-07-2012 Project/Client REHO.1/ Tropicana Energy Suportal Site Oversight - Monitor Well - Soil Vapor Bint Installation 1345 Ss. 1 grab Samples collected from 8-10 bgs. Mw-22 (8-10) So: 1 5/2 b Sample collected from
10-11 bys mw-22 (0-11) 1354 So: 1 grub sample collected from 12.5-15 bys. Mw-22 (12.5-15) 1354 Rubin Maya with \$5 EPA on site. So: 1 grato saple collected from The interval = 16-17 1401 Soil grab Sargle collected from the interno 19-20, Tast interval dis not recover , Grand cave in 1420 1425 Soil grab Sample Collection from interval 22 to 24" 1975 Onis Villarredand Kenoth with U.S. EPA on ste. Gravel caving into hate. U.SEPA Chris V. Rubin M. 1515 and kenneth off site Chris V. took the soil good samples that were collected from MW-21, SG-21, MW-22 and 5G-22. Jone How 507-10/2

Project/Client REHO:1/ Trapianor Energy Superful Site
Oversight - Maritan Well - Sil Vapor Point Installation.

1549 OSS ste out Ritt O'l tong to Fedex to pickup Summas and Bonden 1633 Arrived at Bandena Superfund ste to able Chris V. some questions
Hoss regarding the Sol vapor collection
5-7-12 Bounts. 1653 Off site at Bandera to police 1220 Arrived at FedEx. Pizkadap Two Suma Camisters 1730 Arrived back at hotel Started preparing equipments
supplies for rextday. 1830 Finished for the day, 67 2012

Location Bexas Co. Sin Antons Tx Date 5/08/2012 Project/Client REHO! / Trapian Energy Super Site
Oversight / Soil Vagor Collection 0915 Left hotel for FedEx to pileap remaining Summer canisters from EM Reg Colish at Fed Ex Arrived at FedEx, Pichelep 5 0940 EPA Reg lo Summa consisters 0950 Left FedEx for RiHO! / Tropicana Site. Arrived at ROHOIT Tropicana Site 1025 Teri McMillian with EA over seeing well development at anw. 21. Started consolvering sample trains for 1030 Soil vapor and supoleto sample collection, Raining (00), 70%, Thunder and lightning 1130 Fristed construiting sample truis. Will stat logging Sum can steer 1135 Off site Par lunch 1200 1339 brived back on site Will stat setupon 56-21 for 1345 Soil rapor collection. Suma conister ser al No: 10290 Flow regulator/Canister flow gauge 29,5 inches of 1354 PRPS tented collection of their sample at SG-21. A duplicate was collected at location also. PRP claper campler is Tim Nichtles PRP wing 1 L summa Consters. pre Hory 5-08-2012

Project/Client R & HOIT Tropicana Energy Superfield

Oversight / Soil Vapor Collection

Note PRP vehicle was running they collected their simple Verhile was next to well head port and conster set p. PRP having difficulty necessing soil vapors due to fight clay. 1402 PRP vehile not next to scaple location PRP finished sande collection at 3G-21 1420 Statul serget SG-21 Started piece of the lines and box him 1.0 to 2.0 ec/min. Filled page bag to locome appres. Started Sun 1426 - aresoure - 29.5 in H. 1429 Stopped . Suma pressure ending - 5 in Hg. 1430 Shell Billing bag 1429 Sample collection time for Called Chris Villared with EPA 5-08-2012 Con

Che togs 5/08/2012

Project/Client REHO, 1/Trapian Energy Superford Site
Oversight/Soil Vagor Collection

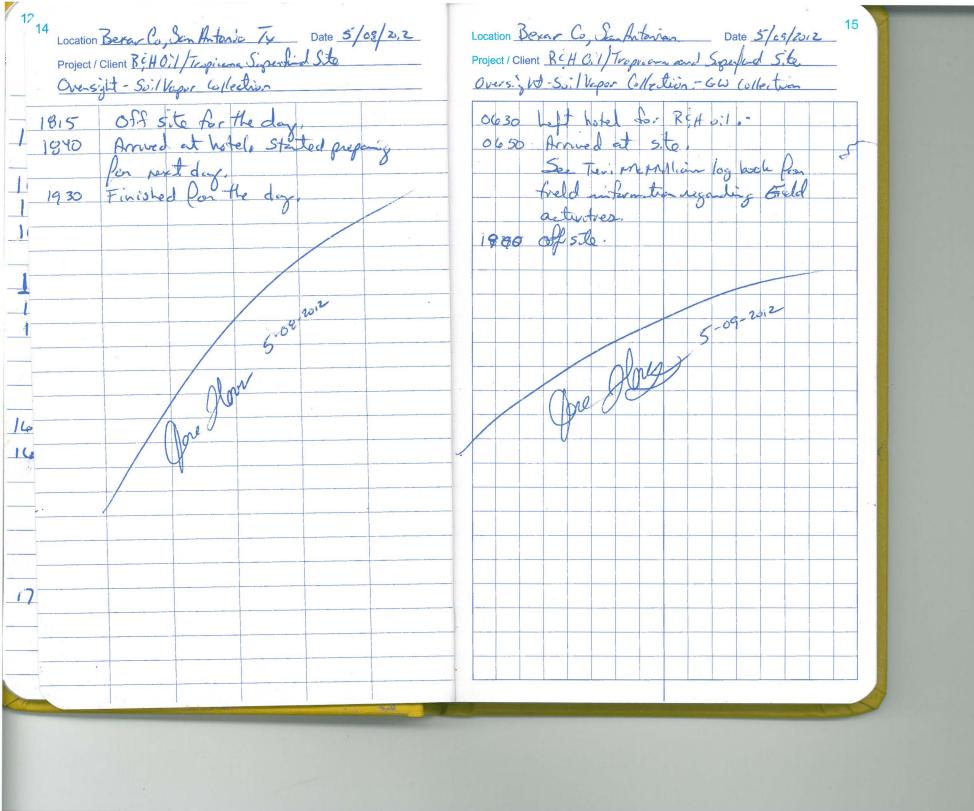
Canistar Start for lecum - 30 in Hy 1529 Started Sample collection of sum 1530 Ended Sample collection of sun -5 in Hg. Inlet may of tracked. 1535 Finished collection of Box lung sample bag. Unable to collect a sample. Formation to tight 1529 Sarple to 1/retion time for SG- 22. 1609 Started Setup at 35 -2. Sub sho saple collection for Soil Vagor. Had to reapply benton to the the sample grint due too old bentonte being conclud. Canister Vaccount 30 in Hg. Setup complete. Started purge of line and GIAS set at 1.0 cc/min.

Location Boxar Co. San Aitanio Te Date 5/08/2012 Project / Client REHO! / Tropinan Energy Superfund Site Oversight-Sil Vagor Colletian

filled punce buy to loome appur. Started Summa collection. 1618 Starting Michigan 30 10Hg 1619 Finished collection at 6 in Hg Started Lilling Box long bong Sample collection time for 1619 55-2 Finished Sampling at location Stanting set up at 56-1 Carrister serial No A3426 1650 Canster flow / flow regulater vicine 30: 14g, 1656 Finished Setup at 36-14 Started purps of line and Box lung Tight farmation conditions any able to Bunge approx o 150 ml into the punge bay: GilAir punp set at 10 Ec/min then inversed to 2.5 due to tight formation. 1702 Jee Clares 5/8/12

Location Boxarlo, Jan Antonio Tx Date 5/05/2012 Project / Client RCHON / Magican Energy Supertud Site Oversight - SilVapor Collection

1706 Started collection of \$6-14 Comoster vacuum + 30 in Hg. Very trait. No roverest of gange or very little movement. Who ement -30 in Hy to 295 in Hy. Able to hear startup and the and then example to hear anything. Finished collection gauge and not more - find reading 395. in Hg. 1719 Will try to collect Box lung Bug unable to BII Box lung bag. Formation 716 Sangle collection time for Steel Sety of Son 15. Orgbote Sample & Gr 15-D and garent single SG-15 will be collected at laction Light breeze, about, cost 70% unable to collect sample location, scraple go. These cut has Called Chris V. to select a new Ocation. 56-19 Willbe replace boution, Will suple on 5-9-2012 Cors 5-09-2012



Location Berarlo Jan Antonio Tr Date 5-10-2012 Location aresight - Gw Sangle Colle tron. Project / Client _ 1 0635 left hotel for site. See Twie menthing loghook For freld activities at site. 1-1230 Stated Sample custody.
Arrived at Fed Ex with eight 7020 sample cooler to be sent to A4 in The Wordlands . Tx. 793530090858 SU/SIM 7973 6076 628 TVBA-MA 1359, 6 -7 TVOASIM-SUMO1.2 798360 77 0990 TWA-MA 1359,64 TWO ASTAM-16 50,001,2 14 79836076 7836 Su/SUSIA 79353027 3107 SV/SV57m 79 23 6057 4464 BM THE 75MO1.3, FCP-AES TIC-MS 7935 3008 3422 SU/SUSTIM 7935 3008 5105 SU/SUSTA 2035 End of day left Fod Ex. Jose Day 5-10-2012



ALL-WEATHER ENVIRONMENTAL FIELD BOOK

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Project R&H Oil / Tropicana En	ergy Supertue
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Location RAH OIL Trop. En Date 5/7/12 3 Project / Client PA TMMillan J Flores 7115 anned at oute PBW not on site 719 - conducted HAS tailoute meeting 740 Tim Note els on ste 750 Jose Flores off- Site to 755 Dan with PBWon-sile 800 Vortex- (dalles) an ote CDS- H2 S meeting PBCD. \$30 On Fitch Street - setting Cent Home premo than to 55 Jose Flores on site 920 bogan geopretin aking Don Samples 3 Sol Toxacoro -Samples for field PIT 6-7, 9-10, 11-12, \$ Codor 9-10 \$ 11-S. Mimelan

Location R4HOILTrop Encupate 5/7/12 Project / Client & PA T. McMillan, J. Flores HC odon 14-15' 695 Lal Soil Samples 10-7/1/4-15'
Wet at -110 695 11.12' No staining visible 20-23' bgs - Sotueted. gravelo and Presond in this Section clay at the bottom PID measurements -(0-7'-78.9 ppmv 9-10'-833 ppmv 11-12 3651 ppmv 14.15' 1196 ppmv 1000 Took 2 additional Dorl Damples for Neadspace liama ges probe es/ auge. Elight Do advance barahde to uno tall wall 1012 - Putting in bord holo for Vapor pt S6-21 - cutting teorgas 1035-bordhose complètes auges 1023 left in Borehole

Location REHOU Trop Energy 5/7/12 5 TM: Millan / 5 mes cellages com titres 10:25 - Hamamanne un Alight (Rod) Cocapielle Pa ship point - butside of accorde Rod-not do commod - maide de commo D3D placing in Japan pt in bordhole-Dand + 4-5' bgs is Clay - gray 0-5" 35 Took sample 3-3' to hosted hastopace. Plan sporter and Uapar pt will be 6' off bottom of bore hole. It is not plan sporble line bentonte on top of sand the was not completed. Instead they used on granula stending 10:35 Dipoles for usol

Location 1824 Of Trop Enew Date S) 7/12 Location R& Hoil Trop Energyte S/8/12 Project / Client _______ PA Project / Client PA Tmmllan J. Flores T. M. Millan 15. Hores Screan - 18 stot 15 ft BS-Off-site Lund 1246 On-5te 1300 Settena upon 56-20 237. Puttong granular bententie en la good - hydrating 56-22 us Wested 10-600 MW-8 1042 - pulling auger flights They are corna cesting from the MW-al Davement. Tokung PID Maskuamonds 31D. Chris w/ EPA Tom called. mw 24-16-17' 1801 ppmv wont over soil sampling Mw 21 19-20' 23,8 ppmv SG 21 2-3' 23,9 ppmv 311- They are probeing & post hold digging bonihole 1045 - Setting wer mw-21 313 - Geoprobers to elamas los tallas III a Sand Silica 10-20 Con 710 37 2" Sch 40 PVC -TD of work hold Then Ift of select and 2 Bunjonite Mole Plug 3/8 chip TOP 10/20 SILICA SAND 5 Top 316- collected sample from 34 2 3 H Con Headspace studence rounant solds -15' Schean - 10Slot Sol is Clay (e) calling Ory - much drunthan

Location R&H Trop Engray Date 5/7/12 Location R& H Trop Energy Date 5/7/12 Project / Client EPA 5. Flores Project / Client _ EPA Mchadlan 5 F 1320 moved Gospide nig over 10-15'- Took sample from to mw-22 - 25' west of 56-22 350/01213Par PID Only Set Vac down to Ston mw-aa SATOOK Samples for SPA while we were at tunch the and all menses where drillers compiled sentace PID measuramento avere Completions for MW-212 SG-21 made samples placed in 331 - Let val compette Gallon baggies - an renowed no utilutes observed. longues (about 5 He Name 334 - backed desprobe rug Careth state at Boars Over 56 22 & shadeling it une collected Samples than set up on Mw-22 to Dut on cee. This was Degen Seoprating one for well mus six Geopoble risdo - were not 5 B-2 V as 1,00 ablation of boundards 1354 - Sample from 12.5-15'-Starting this holde - Inside offer PBW Obsumed their was cleaned Coda NO HC oda 1339-Started geopolome Now a laves (nidule) you MW-22 - 0 to collect each sample. Placed acotate alone on 5-20'- SAMple a Warned Rody that were not cleaned 57 Rusen Mara WEDA 5-10 Dample - gravel at top etro-mo 13455 Ample for Lab '8+10' - also 400.15.20 Dample lead space - Lab Toma tona tode Dample 16-17/600

Location 1 Trop Energy Date S/7/2

Project / Client EPA

Thursdam 5 Flores Location R#N/Trop. EnergypateS/7/12 11 Project / Client 2PA T. McMillan / J. Floros 219-20' bgs - for Headspace g DOD Measurements 19-201 Sample for Lab - PBW. m 1940- 22. 3-4' 0.0 ppm/ 8-10 0.2 ppm Terraçõe WM 29 Wet at a 16 Ceet - Clay starts 10-125' O.1 ppmu Mw aa 12.5.15' 0.4 ppmv at 16-20. alove gravel w/ MW-22 MW-22 1e-17 35.4 ppmv MW-22 19-20 12.1 ppmv MW-22 22-24 0.4 ppmv 1444 Burdeng wood MW-22 Silt sand. 1401 SAmple from 19-20- For. EPA! 00-23' sample is shikin Rod. They are drying to Hole Stund open s' scream losset 1424- Remove Core wet - (soft) 2" PUC Clay tan-placed on table-Hole plg 3/8"
hudralea Jample 22-24 for PID \$ EPA. 0 1425 - Chrison-Site 10/20 Slea kent on ste. SAND 1430 25 27 - Sly Clay as above no HC odor Began augung hole-augus are cloon, will prole 10 slot Scroom TO 25 TO - 15' Scroon 1453 was 605 J. M. Millan

12 Location RAH Trop Energy Date 5/7/12

Project / Client SPA

Thomas Date 5/7/12

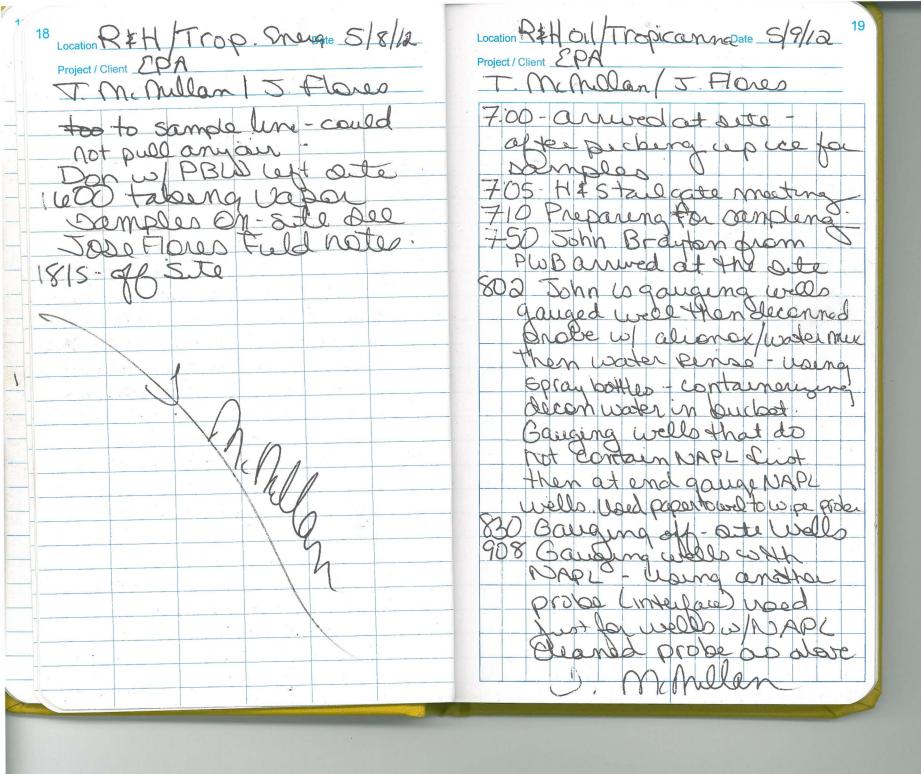
Thomas Date 5/7/12 Location RAH/Trop. Energ Date 5/8/12 13 Project / Client PA T. Mihellan J. Flores Minilan 9:30-01-site - Don Brouton with 15:05. Packeng Samples for EPA. Portable Cab PBWon-site. 1515 EPA Offsite W samples 931- HAS plan Mw-al, -soil to Cal 6-7 11-12 duelopment. 950 gauged use MW-21 14-15 Mw-22 - Soil to Cal 01631 DTW 8-101 23.10 TO waterra - chéck value + 12-14 D 25 part # will 18-201 1555 off-Sute Sunge block alang parameter reading Sp. cond, pH, temp eve 21/2 gallons - one well Volumes 1900an- so 1030 Jose Flores on-site He is Setting up for open Sampling 1035 Dur development with from well Mw-21 has a Blight Hydrocarbon oder 1037-Raining-stee

1 14 Location R&H/Trapleanna Entrate 5/8/12 Location Rath Cap Page 5/8/12/15

Project / Client Shall 2 15 Project/Client EPA
T. Mc/n00an/ 5 Flores 1041- Stopped devolopment 53% helieum in container due to Nain Chacking to see I have 1054- off site to home Depot tor Plastic & & barls (hose) cen som sample pt to 1125 Back on 5.10 Im On-Site - Checkeng. 1154-off-site wench edler bag Checking Tedlay for haleum 1300 - Lunch over - off to No helim in Wedlan Lower to find a part ong - no helum on live 1:1344 - Back-on-site. 575 ppmy helium in Development complete on well MW 21-25 gal duel pod parameters otalsles d Samplaina - Fellina ummalcander also collecting duplicate 1345- Vapor samples from 5G-DI-Checkengto, Still rouning but not as much) make our seals holding 400 TEAM moved to MW-22 Seals holdenos Dielectio believe descotos 1413 - Stopped filling Canuteus 22"Ha - reading on boin Earwhers. Formoton Addinghelium to container TO container to make Dure on une for of minute does not leak. I wille

Location RAH / Trop. Energye 5/8/12 17
Project / Client PA Location REN Trop Engy Date 5/8/12 Project/Client SPA

1. McMillan / J. Flores T. M. Millan / J. Flores - no leaksheld vacuemm 1417 - 2A setting Up Summato Rel at SG-21 - doing holium test Helumin Chamber 81.1 % Hooking up. 1420 - pur line Formation trant - can not - Then collected sample rying helum debeston 1428 - Shut of Dumma 445 - moved to 56-22 on peggine - 175 ppm holiem 1501 - Starting - Summa Day Stell developing Canor statenguacum xil 20 M.M. 2 3 DTW-16.62 695 517 - Stopped Leling Summa-Cauge did not move -TD 25,201 695, 20 gallons out - din four unable to obtain sample. times - Finished 15.18 2A Setting up developing - Developed PBW is spinding campterts Cal - tallengthem to hald rust ube on w. 21 BIT, Spc. temp Stabalized 1919 EA- Durging SG-DD. Albato purge arly clear little Sect/Kand. Uapor Campio grans G-22. 1528. Jum on Summa it appears that top of Dumma Stel purbling is leaberna Woung Dame sample Main 5 35- Tedlan to EPA- could not - punged it to clean it Portong purge pump duedler Chacking to make Dura Ught Applied Vacieum -



20 Location 2 HOUTrop. Encurate 5/9/12

Project/Client EPA

TWENDLand 5 Flores They are gauge no brom least amount of DAPL to greatest. - as practicable 940 John hasderished 945 John Off Sole 1001 John on-site 1006 - AT wall MW-4 - PBW Setting up to sample 1010 - EA placed plastic shorting around the well PBW has Geopump pourtastic pemp placed morde druck & flowthru cell, meters PBW stated that moteus were calibrated Using deducated fulring in Wells I - Tulma 2 feet of bottom of well. 1018 Started Penstalte permp - of little wi = 20.71 ft b48 1021 Initial pumpul - 21.20 John Does not brown TD at well

Location RANOIL TOB Energy 5/9/1221 McMillan / J. Flores 1031 WL- 21 29 11. Sample CLP # 2 for well mis-4 F5MP4- Le VOAS F5ma1- Dupucate 640As HCL Dersawature Analysis of for vocs TUDA-ma=# 1359.6+Tra Sem - 50 mol. 2 Two wors unpreserved for EPA. Hapste Aud GC/ms 1037 - Fince Readers Dunge rate 0.20/m = Termo 23.700 ± 1 Sp. Cond 1158mmhoskm± 10% DO 6.15 Red x 355.1 (mu) PH 7.04 = 5 NTU 10 - 1 10% Filing WOAS for Extra PBW. btc 047- Leling OORS - MW-4 John Allungtham for up menulla.

22 Location R&HOW Trop Energate 5/9/12 Project / Client EPA Mahlan 1115 - They were going to tales compas to motals using a filter - Told them that &PAhod dusted them not to John called Turn Nickels & Turn told John not to use Atler 1118 - Finished Dampling 1130 - at well mw. 200 To sunde Setting up to sample 1137 Started Doustalute pump - initial (0) 21.13 Pt btc - intake of hose on well is 2 feet of the bottom tuling habrale w/ sharple showing where to puel upto. John does not know TD of well. SOP states to place intobe at middled well 1147 DTW-2134 F4 bTC Cheeping farameters

Location REHOU Trop Energate 5/9/12 23 Project / Client D T. Mchillan / J. Flores. and pump note as they Purae: 11.56 DRW 21.34.FL mw-20 CLP # FSMP7 LE VORS for VOCS-HCL TOUR - MA + 1359.6+ TUOA SUM Somoi.a 2 UOAS For EPA unpreserved. Final measuramento-Stable purgerate Ood Umin 24 25.0 VI 1028 (1 \$1070 mmhos/cm) 2.59 -181 (mu) 36 ± 1090 Fine DTW 2134 Ft bgs 1158 - PBW Illing Their WOAS 202 PBW felling our WAS 285 OFF- Sulo 335 - on- size 345 Setting up on MW-9 to sample

Project/Client PPA

T. M. Mallam | J. Floras. Location R&HOW Trop Endance 5/9/1225 13:52 - Well - began pumping 1 Mild. 1 628 # Wel and reading und 9 17 by 5 and reading = 1050 flow Rate O. a @/min mw - 9 CLP # FSMPF F5MP5 Redox (mu) -Turbidity ±10% Le VOAS for vocs HC (TVOR-MA# 1359 6 + TVO ASIM -1412 EA sample 10As fieled somola - lab 2 UOAS for EPA non-presend. Sangle tulma entabe in Set up for purama The well is but 2' above bottom Dedicated tuling of well - at 43' 695 Porostatio Pump mw-9 45'695 phylon for mw-dwas Measuring flow rate & Juld parameters & from "Cross section PWB fundad collections Samples brown mw 9 EA placed plant around Sucs & mutals & vocs wood. 1410- PWB PBW begins to Sample Parameleu Stable es beetlest to see cloten 1434 Setting up on well Fra Darameter. Measure monts.

26 Location Project/Client CPA
Trop Chargeate 5/9/12
Project/Client CPA
Trop Chargeate 5/9/12 Location RAHOU Tropicaminate S/9/1227 Project / Client Project / Client I Mimillan / J Flores Purgano usell as other 1400000 MW-21 - Decommung well were purged WL probe PWB PBW is placing fulring 1503 WL 1648/ 1640 for purging into new well of 1507 WL 1649 purge rate tom is going to 2 ft gram bottom of well change out tulring to flow das points that are not thru all - has done this ery time 15 is OPBW Dampling - fellers Start Wil 16.31 bg 6+c 1450-Resitting tuling en Well Cest too Short 1500 PBW John EA'S DOAS Samples CLP# for Mw.21 1529 Samples Called onice PBW felling 500C & FSmp8-Mwal metals contained F5mad - Mw21-Dup Le VORseach HCL - DOCS 545 Moung to next well TVOR-MA# 13596+ TVOS/M 1547 Gt MW 22 - Seltino Somol. a up to Dample 2 JORS for EPA Hapsite GC Measuring & placing Olse oth parly 1453 Ruber Moya & Chris Villredo on-site CLP# F5MP9 No eaupment blank Will collect Ful a blank COURS HOLL - WOCS TUDA-Ma #1359.6 + + UD ASIM 50 mo 1.2 - andy since 1456 O.22 min. S. Milan

Location R\$HOU\$ Trop Energy Date 5/9/12 29 28 Location \$1001 & Trop Energopte 5/9/12 Project / Client _____ CPA Project / Client EPA T. McMillan J. Flores TMMIllan / J Flores he could been bacus 2 WAS FON EPA HAPSITE Minough. He gave us 603- Started percentalte ot & Jose called pump on wear ma 22 en ex & PA to determine Set up & puraina Dame as described for 8ther excls. Initial WL - No46 btc O. 2 l min. flow Rate pump yntakel - set at lattin (tuling entate) 2' from total hapth 23.20' ft bgs 502Umin 1614 WL - 1657 btc D. 2 Um - puge Rate 1618 WL- 16.58 btc 1622 collecting Educations The 25. 2CTemp 7,14 pH mmhoden 724 Spec Cond Lud Black 1624 JPBW Started Lilling parameters stable. Redax (mu) Turkdoty 1628 Sampling - Filling EAS 16.58 Dow UDAS ~1507 Chres & Ruger Cept with - Dusyng Roup Damples for Haparis that were already campled talked to tim agarding which wells sol you I had of fulling a chour total both

土しつうのと

Project/Client SPA
T. McMillan J. Flores Location R2HOW Trop Surguste 5/19/12 31 Project / Client Project / Client McMillan 5 Flores 1721- Jose stated that Chris TUDA-MATIBSS 6+TUDASUM -Somol. 2 vocs) wanted to sample TM+ Ha 15MO13, ICP-MS+1CP-SG-19- medium designation ASS (netals) Summa & Summa dup. FILLING SA VOAS-SG well be collected into AM 2 YOR & ROL EPA edlar bags for SG-13 Hopsite GC SG-16, SG-17, \$ 56.20 Fillena SVOCS Contains I'm w/ PBW - tested the ollowing wells for all ed parameters otabale law & they weretoo 0. 2 m - Punga Rate 25. 12- Temp - I tight SG-12, SG-14 & SG-18. 1722 DTW in MW-18 22,42/6x take 1st readings usually 5442 nmbosker Spercand #10% 10 min. after Sump has boon running. Redex (m) ± 10 %. 1728 WI MW 18 22,42' bys (730 0.22/m pung nata 1732-PBW es beginningto ful UOA battles from last ment DM 22:42 They took B Medaleramento per crell EACLPH MW18 Finished Dompling o TM CEUDAS HCL4MAMOR UMPRIBLISE filling all containers SV/SVSIM-MA165910 50 m DID T. Michaela SVOCS Sandasonica

Project/Client & PA | J. Flores. Location RAHOIL Tropicements 5/5/12 33 Project / Client EPA I. McMillan / J. 1832 - Sotting up on SG-19 1845 clamping both summas to collect Japan Samples lung box Will collect I summa Summa Dup Than Clamped une \$ I Tedlon for Closed Tedlar & removed EPA Haparte GC from lung box. 1852 going to 05G-20-to Samma Caruster 56-19 -00375 29.5" Ng inital called sol gas un Summa Carrester SG-19 Das eddar bas +DD2 76 30.0" Hay initial 1856 hooken a tedlar Lo Liter Summa Carusters to lung box. 1858 Usena Post pumpto Tested to make sure fee tedlar in ung Canaday tight uspy puige Bremp -56-20 Sample time 1858 it did not Bull air 1900 moving to 36-13 (Gillian - au pump) Dample part. 1904 Setting up on SG-13 same purged line 907 as we did for 56-20 1842 Clamped - Lung box E Sample time for SG-13 Filling Tedlar bas PID massisment on End 1843 Turned on bolk Summa Canusterra 1844 Summas both off DOZT 5 - 5" Ng Junal of Sample line O. Sppnv (Dup) DO 276 24" Hg final 9. M. Millan

24 Location P&H OUTTOD. Energ gate 5/9/12

Project / Client & PA J. Flores Location PHOD Tropicanna Date 5/10/1235 Project / Client EPA I. M. M. Molan / J. Flores 7:6:58 Arrived at the Sito 1912- Salling up to Collect, Sol Gas at 702-H25 talgate mostine 56-1910 Tedlar bag PBLD, John, anuesa as done for SG 20 XTh 710 PBW Dunging Mub-16 Noestelmoused for nitalul - Blit bte lach location Plan Rate O. D. R./ min 1915 Sample collection began for 30-16 mw-le CLP# FSMP1 + w very tight -CO UDAS HCL for UDCS Could not obtain TUDA-MAH 1359. 6+TUDASIM Sample of soil gas Somol 2 2 UDAS for EPA Hapsite ReldGS 1919 Setting US to collect Dapor Sample 1-l'Amous for SUDES 1922 began sampling SU/5USIM - Ma# 1859.1-Somol. 2 56-17- filling Tedlar m5/mB varcacid - too tight - could not obtain ou cample. MS TM Ha - I SMOI 3, ICP- mst Eleaned up -929-off-site. I and bond took well E eduty parlet gm sotallic perns to the

36 Location HOI Trop Energy Date S/10/12 Project / Client PA T. Mchalan J. Flores. Clow thru coll John stated that all moders were calibrated 7:22 WI-2122 btc flow rate 0.22/men WL-21.23' b+c flow rate 0, a 2 min 7:31 WL - 21 22 6+C PBW Began to collect samples Allengtheir UOAS Priot flow thru all and used 735 Felling UDAS for EA. PBW- John filling them 736 Jose Flored Loveng COAS for Lad blank 840 - Frushed Dampling MW-169 845 - at well Mw-14 Started pump. DTW - 22/21/6+c O.2 2/ men flow rate Started to Rain

LOCATION Trop Energy Date S/10/12 37 Project / Client 2PA T. Mchillan Sot up campy such the rang well as the Used MW-16 mw-16-Darameters pungo Rate 24.3°C Temp 7.03 1 Le la nonheolom + 10% Sp. cond Do 0.30 Zedex -127(mu) 生しるい CIP # F5mpo 20A Ma # 1359 64 TUDASUM-Somol. a JOAS FOLE PAHAPSITE Amber for 500cs SUSIM mat 1859.1 Somol.2 cates do SUDCS e poly on aced to a mo motals CCP ME SPMO ACE

38 Location R&H Trop Energy Date 5/10/12 Location REH MORENE Date 5/10/12 39 Project / Client 2PA Project / Client 2 PM T. Michellan 5 Flores T. Mimilan S. Flow 900 PBW bagan to sample his tapate fild GC. Feling their UDAS Hold him we had two 905 - MW-14. Reling EA nourello to sout Samples UDAS 500Cs & notals then we would Plus PBW SUDCS & metals ng eu samples-10:37 - Finished Sampling e said are did not need to overse Samoling of Parametes denal meas purg Rate 0. 2 lm temp 22.9°C collecting the solit sample Sellene Goon MW-19 1056 Stated pump Buying well as perante deditated tuling as Sp. cond 1806 mhs/sm allow and on other walls 00 1.06 Redux -138 MU LP# F5MPCO WOAS FOR WOCS AC4 Tub 51 xIMTUOA - Ma# 1359.6+ DTW 23.89 Darameters Otable TUCKSmm-Somol. 2 1045 - Surryges On-site to agening - hard now anopy over well Survey well John 'm volucle with Called Chris w/8PA-EQuip -Told him we had 3 more Decommy wil prope volter samples for hem Inhal 26,41 product re said he vooild use us 20.47 water to not collect anymore

40 Location 2 4 NOI Trop Some 5/10/12 Project / Client PA T. Mchillan / J. Flores 107 m product 00.49 67 e/min flow Rate min blowfate pump line alove 1116 2 totte to product leve 20,49 blc 1117 O. 22/min flow pate that I PBW began Bampling 1120 Began FBW FF Illen, Damples for their Are SUOCS \$ 1132 Feri Mc Mloan M site. Firsted filling sample containers for Final Parameter readys Pinge rate 0.2 4/m Temp 23,5 OC PH 7.05 D. Mcheller

Location R&How Trop Entry 5/10/12 Project / Client SPA 936 mmhuska - 230 mV 50 Setting up on well Sample tuling 2' alove wittom of well LP# F5mP2 TUDA- Ma # 1359. 6+ TUDASUM -Somol. 2. e JOAS for UOCS SUSIM- Math 55.1 Som012. P# MFSMPZ metals notice and. Tm+la-15mol,3,1cP-ms +IcP-n28 1157 Otasted Dunging Mu-A

42 Lapakink Houtrop Enu Date 5/10/12

Project / Client PA

Thuman JF Gres Location 17 Dil Project / Client Flow nate 0.2 l/men United 21.34 product 21.35 worden 1203 OT product 21.34' flowrate 0.20/min 1210 DT product 21.36 btc 0.2 2/min flow rate 1215 DT product 21.36 btc 1216 Started sampling Filling PBW 5 UOAS 1219 - SAMPLETINE MW-17-Alling & A UDA'S
Then PBW'S & & & A S
SUDCS & metalo. 1300 Anished sampling Anal fuld parameters of pura hate 0.2 mm

Temp 23.4 °C

pH 6-90

Spec- cord 967 mmhs cm²

DO -210 0.91 Redux - 210 Turting 57 Well Apth 21.30 bgs

EA Project No.: 14342.74 September 2012

EA Engineering, Science, and Technology, Inc.

ATTACHMENT 3

PHOTOGRAPHS



Photograph No. 1 (May 2012)
Description: Using Geoprobe® to install MW-21.



Photograph No. 2 (May 2012)

Description: Soil core samples collected in acetate sleeves at MW-21.



Photograph No. 3 (May 2012)
Description: Poly tubing surrounded with layer of coarse filter pack sand followed by a layer of bentonite to ground surface at MW-22.



Photograph No. 4 (May 2012)

Completed well vault with concrete pad at MW-22.



Photograph No. 5 (May 2012)

Description: Soil vapor gas testing with Summa canister and Tedlar® bag at SG-21.



Photograph No. 6 (May 2012)

September 2012

Description: Ground water sampling at MW-20.



Photograph No. 7 (October 2011)

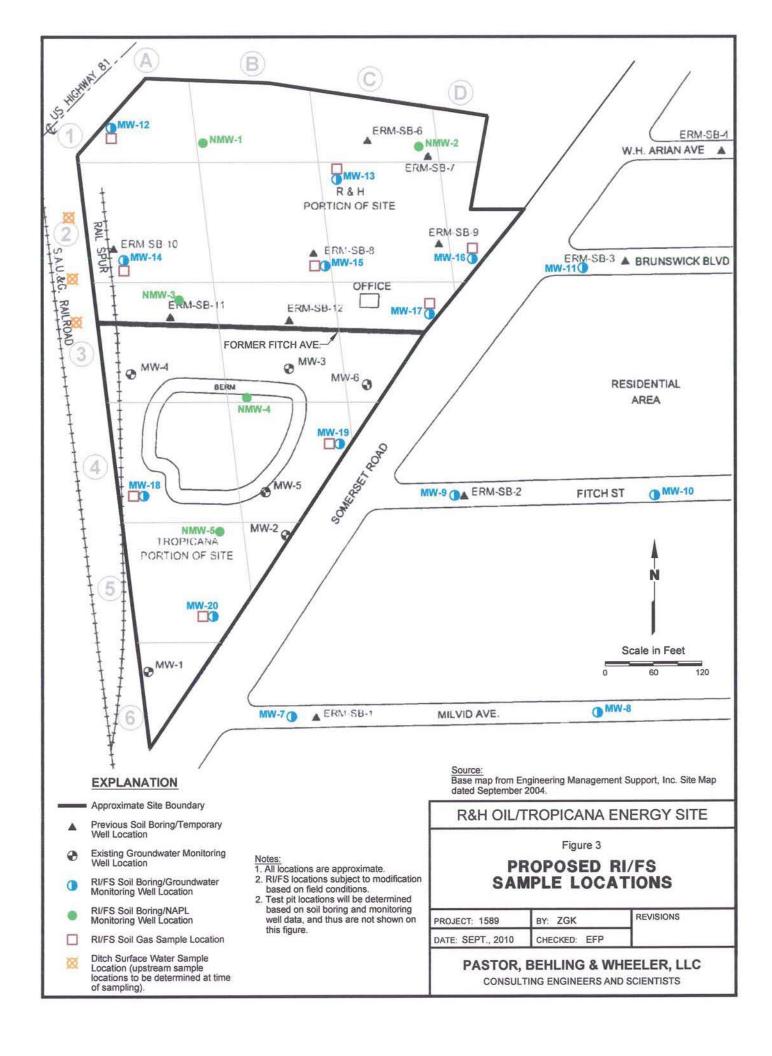
Description: Collecting ground water samples in the rain at MW-19.

EA Project No.: 14342.74 September 2012

ATTACHMENT 4

WELL LOCATION MAP

From PRP Field Sampling Plan by Pastor, Behling & Wheeler, LLC (PBW)



EA Project No.: 14342.74 September 2012

ATTACHMENT 5 CHAIN-OF-CUSTODY DOCUMENTATION

DateShipped: 5/11/2012

AirbillNo: 7983 6108 1447

CarrierName: FedEx

Special Instructions:

USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD

Site #: 06MB

No: 6-050912-234855-0004

Lab: U.S. EPA Region 6 Laboratory Sample Control

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
SS-2	Air/ Jose Flores	Grab	TO-15(21)	6-474160 (None) (1)	SS-2	05/08/2012 16:19	
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				100		,	, .
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				*		P	

Analysis Key: TO-15=TO-15													
Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time		
	Jon Low	5-71-2012	<u> </u>										

CHAIN OF CUSTODY RECORD

No: 6-050912-235753-0005

DateShipped: 5/11/2012

Site #: 06MB

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

CarrierName: FedEx AirbillNo: 7983 6103 3428

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
TB-1-Air	Air/ Jose Flores	Grab	TO-15(21)	6-474164 (None) (1)	TB-1-Air	05/08/2012 18:00	
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	Shipment for Case Complete? Y
Special Instructions:	Samples Transferred From Chain of Custody #
Analysis Key: TO-15=TO-15	

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CHAIN OF CUSTODY RECORD

No: 6-051012-000102-0006

DateShipped: 5/11/2012

Site #: 06MB

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

CarrierName: FedEx AirbillNo: 7983 6108 5155

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
SG-21	Air/ Jose Flores	Grab	TO-15(21)	6-474161 (None) (1)	SG-21	05/08/2012 14:29	
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1						5	
					3		
			*				
			v				

	Shipment for Case Complete? Y
Special Instructions: A possible leak at EA's connection to the Summa canister may of occurred during sample recovery.	Samples Transferred From Chain of Custody #
Analysis Key: TO-15=TO-15	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
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			X-902-X-00-10-10-10-10-10-10-10-10-10-10-10-10-								
		1	-								

CHAIN OF CUSTODY RECORD

No: 6-051012-000259-0007 Lab: U.S. EPA Region 6 Laboratory Sample Control

Center

DateShipped: 5/11/2012

Site #: 06MB

Lab Contact: Christy Warren Lab Phone: 281-983-2137

CarrierName: FedEx
AirbillNo: 7935 3051 2879

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
SG-22	Air/ Jose Flores	Grab	TO-15(21)	6-474162 (None) (1)	SG-22	05/08/2012 15:29	
							N

					>		
			# 2 1				

× ,	Shipment for Case Complete? Y
Special Instructions: A leak was identifed at the EA connection to the Summa canister during sample collection.	Samples Transferred From Chain of Custody #
Analysis Key: TO-15=TO-15	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	brokons	5-11-12									
							,				
¥		2									

CHAIN OF CUSTODY RECORD

No: 6-051012-000807-0008

DateShipped: 5/11/2012

CarrierName: FedEx

Site #: 06MB

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren Lab Phone: 281-983-2137

AirbillNo: 7935 3	051 6201			
Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bott

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
SG-14	Air/ Jose Flores	Grab	TO-15(21)	6-474159 (None) (1)	SG-14	05/08/2012 17:16	

	Shipment for Case Complete? Y
Special Instructions: Possibly not enough volume recovered to run analysis, possibly due to tight clay formation.	Samples Transferred From Chain of Custody #
Analysis Key: TO-15=TO-15	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	Jackors	5-11-12									
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CHAIN OF CUSTODY RECORD

No: 6-051012-232918-0014

DateShipped: 5/11/2012

AirbillNo: 7935 3051 8351

CarrierName: FedEx

Site #: 06MB

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
SG-19	Air/ Jose Flores	Grab	TO-15(21)	6-474158 (None) (1)	SG-19	05/09/2012 18:43	
			The second secon			1100000	
					3 W. 22300		1

	Shipment for Case	se Complete? Y
Special Instructions:	Samples Transfe	rred From Chain of Custody#
Analysis Key: TO-15=TO-15		

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	(prestores	5-11-12									
			0.								

CHAIN OF CUSTODY RECORD

No: 6-051012-233352-0015

DateShipped: 5/11/2012

Site #: 06MB

Lab: U.S. EPA Region 6 Laboratory Sample Control Center Lab Contact: Christy Warren

Lab Phone: 281-983-2137

CarrierName: FedEx AirbillNo: 7935 3052 0101

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
SG-19-D	Air/ Jose Flores	Grab	TO-15(21)	6-474163 (None) (1)	SG-19-D	05/09/2012 18:43	
							,

	Shipment for Case Complete? Y
Special Instructions:	Samples Transferred From Chain of Custody #
Analysis Key: TO-15=TO-15	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
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	Jan Jane	5-11-12									
	100										
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TestAmerica Houston 6310 Rothway Street Houston, TX 77040

Chain of Custody Record

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Phone (713) 690-4444 Fax (713) 690-5646																		ter Alberteit	: 1: 1 tr 1: +	(8)5 (1)36
Client Information	Sampler:	Ŋ			chadk	ar, Sa	ach n	G				Carri	er Trac	king N	o(s):			COC No. 600-9060.1	1200000	
Ollent Contact: Mr. Tim Nickels	Phone:			E-Mai sach		dchad	lkar@	testa	ameri	cainc.c	om							Page: Page of		
Company: Pastor, Behling & Wheeler LLC									Ar	nalysi	is Re	que	sted					Job #:		
Address: 2201 Double Greek Dr. Suite 4004	Due Date Request	ed:									T							Preservation Code		
ity: Round Rock	TAT Requested (da	iys):																A - HCL B - NaOH C - Zn Acetate D - Nitric Acid	M - Hexane N - None O - AsNaO2 P - Na2O4S	
State, Zip: FX, 78664																		E - VaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2SO3	
Phone: 512-671-3434 Tel)	PO#:			722	No)													G - Amchler H - Ascorbic Acid	S - H2SO4 T - TSP Dodecar	hydrate
mail: im.nickels@pbwllc.com	WO #:				Yes or h	TAL	1006										97.5	J - DI Water K - EDTA	U - Acetone V - MCAA W - ph 4-5	
Project Name: R&H Oil	Project #: 60002002	10	78.00		Sample (Yes or	Metals TOTAL	HOLD TX1006										containe		Z - other (specify	<i>i</i>)
Site: San Antonio	SSOW#:	***			Samp	- Wet		-100	-SVOC					1			o lo	Other:		
Sample Identification	Sample Date	Sample Time	Type (C=comp, O=G=grab) DT-TI		eld Filtered	6010B, 7470A-	TX_1005- TPH:	8260B_LL - VO	8270C_LL - S\								Total Number	Special Ins	tructions/Not	te:
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5/30/2012

Page 76 of 77

TestAmerica Houston

6310 Rothway Street

Houston, TX 77040

Chain of Custody Record



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ompany: astor, Behling & Wheeler LLC			49/411		Π	-						ques	sted				Job #:	
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201 Double Creek Dr. Suite 4004 ty:	TAT Requested (days	s):			1			- 1									A - HCL 3 - NoOH	M - Hexane N - None
ound Reck ate, Zip:																	C - Zn Acetate D - Nitric Acid	O - AsnaO2 P - Na2O4S
X, 78664																	E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2SO3
ione: 12-671-3434(Tel) 512-671-3446(Fax)	PO #.				No)												G - Amchlor H - Ascorbic Acid	S - H2\$O4
nail: n.nickels@pbwllc.com	WO #:				5 0	TA!	9001									,s	- Ice J - Di Water	U - Acetone V - MCAA
oject Name; &H Oil	Project #: 50002002				le (Yes	15	XTQ									containers	K - EDTA L - EDA	W - ph 4-5 Z - other (specify)
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mw-17		1240	6	W	$\dagger \dagger$	X	V		1	\top	+					13		
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eliverable Requested: I, II, III, IV, Other (specify)	POISON B OTKING	JVVII	Radiologic	ai	Sp		Instru			Requi			ai by	Lab		Arch	ive For	Months
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elinquished by	Date/Time:			Company		Dan	eived by	•						Date/	- Control of the Cont			Company

6310 Rothway Street

Houston, TX 77040 Phore (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Client Information	JOHN CE SAMPLE	Sample JOHN BRAYOU				chadkar, Sachin G				Can	ner Tra	Carrier Tracking No(s):				COC №: 600-9060.1			
Client Contact: Mr. Tim Nickels	Phone:			E-Ma saci	որ։ nin.kud	chadi	kar@t	testa	meric	ainc.c	om							Page Page	2
Company: Pastor, Behling & Wheeler LLC									An	alysi	s Re	que	ste	d				Job #:	
Address: 2201 Double Creek Dr. Suite 4004	Due Date Requeste	rd:)246 6186								T					Preservation	Codes:
City: Round Rock	TAT Requested (da	equosted (days):																A - HCL B - NaOH C - Zn Acetate	
Stale, Zip: TX, 78664																		D - Nitric Acid E - NaHSO4 = - MeOH	Q - Na2SQ3
Phone: 512-671-3434(Tel) 512-671-3446(Fax)	PO #:		100		ि													G - Amchlor	R - Na2S2SQ3 S - H2SQ4 cld T - TSP Dodecahydra
Email: tim.nickels@pbwllc.com	WO#:				Yes or No)	TAL	1006										20	- Ice	U - Acetone V - MCAA
Project Name: R&H Oil	Project#: 60002002		- Maria		e (Yes	s-T0	HOLD TX1006										containers	K-EDTA L-EDA	W - ph 4-5 Z - other (specify)
Site: San Antonio	SSOW#:				Sample (Yes	Meta	HOL	ည္က	30								of con	Other:	
			Sample	Matrix		6010B, 7470A- Metals- TOTAL	TX_1005- TPH:	8260B_LL - VOC	8270C_LL - SVOC										
		Sample	Type (C=comp,	(W=water, S=solid, O=wasto/oil,	Field Filtered Perform MS/A	08, 7	1005	1 809	1 00 L								Total Number		
Sample Identification	Sample Date	Time	G=grab)	37=Ylssue, A=Air)		8	×	826	827	_	_		_				To	Specia	al Instructions/Note:
- MIL AL		\approx	Preservat		XX	V.	V	-/	-0	- C		CHI		2507	2.56	1 1	\perp \times	4	
mw-21	5-9-12	j530	G	W	Ш.	Ì	N	N	X								1.0		
MV-22		1640	G	W	Ш	X	X	X	X										
mw-18		1750	G	W	Ш	X	X	X	X										
TRIP BLANK					Ш												1,33		
					Ш	-													
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					Ш												11.0		
Possible Hazard Identification			2		Sa	mple	Disp	osal	(Af	ee ma						s are	1	ed longer tha	in 1 month)
Non-Hazard Flammable Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify)	Poison B Unk	nown 🗀	Radiologica	1	Sp		Return Instru		-		iremer		sal E	By La	ab	-	Arc	hive For	Months
Empty Kit Relinquished by:		Date:	10070		Time:	-					11192		Meth	od of	Saipme	ent:			
Relinquished by	Date/Time:			Company		Rece	elved by	-	1		-				Date/			0.	Company
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Relinquished by:	Date/Time:	***********		Company		Reco	eived by	y:	-			-	7		Date/	ime;			Company
Custody Seals Intact: Custody Seal No.:					Cooler Temperature(s) °C and Other Re				r Remarks:										

TestÂm'xica Houston

6310 Rothway Street Houston, TX 77040

Chain of Custody Record



Phone (713) 690-4444 Fax (713) 690-5646		-9-	i												1 1 1 1 1 1	Makabath Wildelin III y
Client Information	Sampler: JOH	NBR	PYTON	Lab P Kudo	chadkar	, Sachi	n G			Carrie	r Trackin	g No(s):			COC No: 600-9060.1	
Client Contact: Mr. Tim Nickels	Sampler: JOH Phone: 512	-671-3	3434	E-Mai sach		nadkar(@testa	americai	nc.com						Page: Page of	
Company: Pastor, Behling & Wheeler LLC								Ana	lysis Re	eques	ted				Job#:	
Address: 2201 Double Creek Dr. Suite 4004	Due Date Reques	ted:	B Comment				T								Preservation Co.	
City: Round Rock	TAT Requested (c	lays):	Ĭ.											1 1	A - HCL B - NaOH C - Zn Acetate	M - Hexane N - None O - AsNaO2
State, Zip: TX, 78664													Ì		D - Nitric Acid E - NaHSO4 F - MeOH	P - Na2Q4S Q - Na2SO3
Phone: 512-671-3434(Tel) 512-671-3446(Fax)	PO #:		1		6										G - Amehlor H - Ascorbic Acid	R - Na2S2SO3 S - H2SO4 T - TSP Dodecahydr
Email: tim.nickels@pbwllc.com	WO#:				s or No No)	TAL							ĺ		1 - Ice J - DI Water	U - Acetone V - MCAA
Projec: Name: R&H Oil	Project #: 60002002				Sample (Yes	S- TO									K - EDTA L - EDA	W - ph 4-5 Z - other (specify)
Site: San Antonio	SSOW#:	- W			SD (Y	Meta	0	SVOC						of cor	Other:	
Sarritons			Sample	Matrix	Filtered S	TPH.		\s.							47	
		Sample	Туре	(Wowater, Sesold, Ocwastafell,	Field Filtered Sampte (Yes or Perform MS/MSD (Yes or No)	6010B, 7470A- Metals- TOTAL TX 1005- TPH: HOLD TX1006	3260B_LL - VOC	8270C_LL -						Total Number		
Sample Identification	Sample Date		G≕grab) вт	=Tissue, A=Air)	Field	00 X	826	827	1	4-1				Tot	Special In	structions/Note:
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111W-11		1920	6	W		XX	X	X	4-4-	++	_	++	_			
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Mn-D		1130	6	W		XX	X	X		44						
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MW-6	1	1330	6	الما		XX	1X	X								
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Possible Hazard Identification Non-Hazard Flammable Skin Irritant P		. 🗀			Sar	mple Di	isposa -	al (A fee	may be	assess	ed if s	ample	s are re	taine	d longer than 1 ive For	month)
Non-Hazard Flammable Skin Irritant P Deliverable Requested: I. II, III, IV, Other (specify)	oison B — Un	KNOWN	Radiological		Spe	Retu ecial Ins	im To structic	ons/QC F	Requireme	Disposi ents:	al By L	ab	terment	Archi	ive For	Months
Empty Kit Relinquished by:		Date:			Time:					M	fethed of	Shipme	nt			
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Relinquished by	Date/Time:	1		ompany	Y	Réceive	S. L. P.		***************************************			Cate/T				Company
Relinquished by:	Datc/Time:		0	ompany		Receive	d by:					Date/Ti	më:			Company
Custody Saals Intact: Custody Seal No.:						Cr pler T	ow als	iture/e °C	and Oher F	lo 1ks:		1				

CHAIN OF CUSTODY RECORD

No: 6-050912-222243-0001

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli Lab Phone: 281-292-5277

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7983 6076 6288 Case #: 42498

For Lab Use Tag/Preservative/Bottles Station Collected Inorganic Coll. Analysis/Turnaround **Organic** Matrix/Sampler Sample # Only Method Location Sample # Grab 6-474050 (HCL pH<2), 6-MW-4 F5MP4 Water/ Jose TVOA/T-SIM(21), TVOA/T-05/09/2012 10:47 474051 (HCL pH<2), 6-Flores SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-474052 (HCL pH<2), 6-SIM(21), TVOA/T-SIM(21) 474053 (HCL pH<2), 6-474054 (HCL pH<2), 6-474055 (HCL pH<2) (6) F5MP5 Grab TVOA/T-SIM(21), TVOA/T-6-474056 (HCL pH<2), 6-MW-9 05/09/2012 14:12 Water/ Jose **Flores** SIM(21), TVOA/T-SIM(21), 474057 (HCL pH<2), 6-TVOA/T-SIM(21), TVOA/T-474058 (HCL pH<2), 6-SIM(21), TVOA/T-SIM(21) 474059 (HCL pH<2), 6-474060 (HCL pH<2), 6-474061 (HCL pH<2) (6) F5MP7 Water/ Jose Grab TVOA/T-SIM(21), TVOA/T-6-474068 (HCL pH<2), 6-MW-20 05/09/2012 12:02 474069 (HCL pH<2), 6-Flores SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-474070 (HCL pH<2), 6-SIM(21), TVOA/T-SIM(21) 474071 (HCL pH<2), 6-474072 (HCL pH<2), 6-474073 (HCL pH<2) (6) F5MP8 Water/ Jose Grab TVOA/T-SIM(21), TVOA/T-6-474074 (HCL pH<2), 6-MW-21 05/09/2012 15:20 Flores SIM(21), TVOA/T-SIM(21), 474075 (HCL pH<2), 6-TVOA/T-SIM(21), TVOA/T-474076 (HCL pH<2), 6-SIM(21), TVOA/T-SIM(21) 474077 (HCL pH<2), 6-474078 (HCL pH<2), 6-474079 (HCL pH<2) (6)

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6	Shipment for Case Complete? Y Samples Transferred From Chain of Custody #
Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
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CHAIN OF CUSTODY RECORD

No: 6-051012-151441-0009

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

DateShipped: 5/10/2012 CarrierName: FedEx

AirbillNo: 7983 6077 0990

Case #: 42498

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
F5MP0	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474000 (HCL pH<2), 6- 474001 (HCL pH<2), 6- 474002 (HCL pH<2), 6- 474003 (HCL pH<2), 6- 474004 (HCL pH<2), 6- 474005 (HCL pH<2) (6)	MVV-14	05/10/2012 09:05	MF5MP0	
F5MP1	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474016 (HCL pH<2), 6- 474017 (HCL pH<2), 6- 474018 (HCL pH<2), 6- 474019 (HCL pH<2), 6- 474020 (HCL pH<2), 6- 474021 (HCL pH<2) (6)	MW-16	05/10/2012 07:35	MF5MP1	
F5MP2	Water/ Jose Flores	Grab	TVOAT-SIM(21), TVOAT- SIM(21), TVOAT-SIM(21), TVOAT-SIM(21), TVOAT- SIM(21), TVOAT-SIM(21)	6-474028 (HCL pH<2), 6- 474029 (HCL pH<2), 6- 474030 (HCL pH<2), 6- 474031 (HCL pH<2), 6- 474032 (HCL pH<2), 6- 474033 (HCL pH<2) (6)	MW-17	05/10/2012 12:19	MF5MP2	
F5MP3	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474039 (HCL pH<2), 6- 474040 (HCL pH<2), 6- 474041 (HCL pH<2), 6- 474042 (HCL pH<2), 6- 474043 (HCL pH<2), 6- 474044 (HCL pH<2) (6)	MW-18	05/09/2012 17:37	MF5MP3	

		Shipment for Case Complete? Y
Special Instructions: TV	/OA+TVOASIM SOM01.2+MA#1359.6	Samples Transferred From Chain of Custody #
Analysis Key: TVOA/T-S	SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
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CHAIN OF CUSTODY RECORD

Case #: 42498

No: 6-051012-151441-0009

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

DateShipped: 5/10/2012

DateShipped: 5/10/2012 CarrierName: FedEx

AirbillNo: 7983 6077 0990

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
F5MP6	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474062 (HCL pH<2), 6- 474063 (HCL pH<2), 6- 474064 (HCL pH<2), 6- 474065 (HCL pH<2), 6- 474066 (HCL pH<2), 6- 474067 (HCL pH<2) (6)	MW-19	05/10/2012 11:20		ē
F5MP9	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474080 (HCL pH<2), 6- 474081 (HCL pH<2), 6- 474082 (HCL pH<2), 6- 474083 (HCL pH<2), 6- 474084 (HCL pH<2), 6- 474085 (HCL pH<2) (6)	MW-22	05/09/2012 16:28		
F5MQ6	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474134 (HCL pH<2), 6- 474135 (HCL pH<2), 6- 474136 (HCL pH<2), 6- 474137 (HCL pH<2), 6- 474138 (HCL pH<2), 6- 474139 (HCL pH<2) (6)	TB-2	05/09/2012 21:30		
F5MQ8	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474146 (HCL pH<2), 6- 474147 (HCL pH<2), 6- 474148 (HCL pH<2), 6- 474149 (HCL pH<2), 6- 474150 (HCL pH<2), 6- 474151 (HCL pH<2) (6)	FB-2	05/10/2012 07:36		

	Shipment for Case Complete? Y
Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6	Samples Transferred From Chain of Custody #
Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
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CHAIN OF CUSTODY RECORD

No: 6-050912-222243-0001

DateShipped: 5/10/2012

CarrierName: FedEx
AirbillNo: 7983 6076 6288

Case #: 42498

Lab: A4 Scientific Lab Contact: Laxmi Teerupalli

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
F5MQ0	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474086 (HCL pH<2), 6- 474087 (HCL pH<2), 6- 474088 (HCL pH<2), 6- 474089 (HCL pH<2), 6- 474090 (HCL pH<2), 6- 474091 (HCL pH<2) (6)	MW-21-D	05/09/2012 15:20		
F5MQ1	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474092 (HCL pH<2), 6- 474093 (HCL pH<2), 6- 474094 (HCL pH<2), 6- 474095 (HCL pH<2), 6- 474096 (HCL pH<2), 6- 474097 (HCL pH<2) (6)	MW-4-D	05/09/2012 10:47		
F5MQ5	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474128 (HCL pH<2), 6- 474129 (HCL pH<2), 6- 474130 (HCL pH<2), 6- 474131 (HCL pH<2), 6- 474132 (HCL pH<2), 6- 474133 (HCL pH<2) (6)	TB-1	05/09/2012 07:30		
F5MQ7	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474140 (HCL pH<2), 6- 474141 (HCL pH<2), 6- 474142 (HCL pH<2), 6- 474143 (HCL pH<2), 6- 474144 (HCL pH<2), 6- 474145 (HCL pH<2) (6)	FB-1	05/09/2012 16:22		

	Shipment for Case Complete? Y
Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6	Samples Transferred From Chain of Custody #
Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
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CHAIN OF CUSTODY RECORD

No: 6-051012-172143-0012

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7935 3008 5105 Case #: 42498

Organic Analysis/Turnaround Matrix/Sampler Coll. Tag/Preservative/Bottles Collected Inorganic For Lab Use Station Sample # Sample # Method Location Only F5MP0 SV/SVSIM(21), SV/SVSIM(21), 6-474006 (Ice 4 C), 6-MW-14 MF5MP0 Water/ Jose Grab 05/10/2012 09:05 SV/SVSIM(21), SV/SVSIM(21) 474007 (Ice 4 C), 6-Flores 474008 (Ice 4 C), 6-474009 (Ice 4 C) (4)

	Shipment for Case Complete? Y
Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1	Samples Transferred From Chain of Custody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2	

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CHAIN OF CUSTODY RECORD

No: 6-051012-172816-0013 Lab: A4 Scientific

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7935 3009 0858 Case #: 42498

Lab Contact: Laxmi Teerupalli

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
F5MP1	F5MP1 Water/ Jose Grat		SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21)	6-474022 (Ice 4 C), 6- 474023 (Ice 4 C), 6- 474024 (Ice 4 C), 6- 474025 (Ice 4 C) (4)	MW-16	05/10/2012 07:35	MF5MP1	

	Shipment for Case Complete? Y
Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1	Samples Transferred From Chain of Custody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
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CHAIN OF CUSTODY RECORD

No: 6-051012-171208-0011

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7935 3008 3422 Case #: 42498

Lab: A4 Scientific
Lab Contact: Laxmi Teerupalli

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
F5MP2 Water/ Jose Gra Flores		Grab	SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21)	6-474034 (Ice 4 C), 6- 474035 (Ice 4 C), 6- 474036 (Ice 4 C), 6- 474037 (Ice 4 C) (4)	MW-17	05/10/2012 12:19	MF5MP2	
AMARIA								

	Shipment for Case Complete? Y
Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1	Samples Transferred From Chain of Custody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2	

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CHAIN OF CUSTODY RECORD

No: 6-050912-223702-0002

DateShipped: 5/10/2012 CarrierName: FedEx

Case #: 42498

Lab: A4 Scientific Lab Contact: Laxmi Teerupalli

AirbillNo: 7983 6076 7836

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
F5MP3 Water/ Jose Flores		Grab SV/SVSIM(21), SV/SVSIM(2 SV/SVSIM(21), SV/SVSIM(2		6-474045 (Ice 4 C), 6- 474046 (Ice 4 C), 6- 474047 (Ice 4 C), 6- 474048 (Ice 4 C) (4)	MW-18	05/09/2012 17:37	MF5MP3	
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	Shipment for Case Complete? Y
Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1	Samples Transferred From Chain of Custody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	Gelory &	5-10-12									
										58 T	

CHAIN OF CUSTODY RECORD

No: 6-051012-163408-0010

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

DateShipped: 5/10/2012 CarrierName: FedEx

CarrierName: FedEx
AirbillNo: 7935 3027 3107
Case #: 42498

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
F5MQ4	Water/ Jose Flores	Grab	SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21)	6-474010 (Ice 4 C), 6- 474011 (Ice 4 C), 6- 474012 (Ice 4 C), 6- 474013 (Ice 4 C) (4)	MW-14-D	05/10/2012 09:05		
							2	

	Shipment for Case Complete? Y				
Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1	Samples Transferred From Chain of Custody #				
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2					

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
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CHAIN OF CUSTODY RECORD

No: 6-050912-230237-0003

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

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DateShipped: 5/10/2012 CarrierName: FedEx

AirbillNo: 7983 6057 4464

Case #: 42498

Inorganic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Organic Sample #	For Lab Use Only
MF5MP0	Water/ Jose Flores	Grab	TM+HG(21)	6-474014 (HNO3 pH<2) (1)	MVV-14	05/10/2012 09:05	F5MP0	
MF5MP1	Water/ Jose Flores	Grab	TM+HG(21), TM+HG(21)	6-474026 (HNO3 pH<2), 6-474027 (HNO3 pH<2) (2)	MW-16	05/10/2012 07:35	F5MP1	
MF5MP2	Water/ Jose Flores	Grab	TM+HG(21)	6-474038 (HNO3 pH<2) (1)	MVV-17	05/10/2012 12:19	F5MP2	
MF5MP3	Water/ Jose Flores	Grab	TM+HG(21)	6-474049 (HNO3 pH<2) (1)	MW-18	05/09/2012 17:37	F5MP3	
MF5MP4	Water/ Jose Flores	Grab	TM+HG(21)	6-474015 (HNO3 pH<2) (1)	MW-14-D	05/10/2012 09:05		
			4.44					

Sample(s) to be used for Lab QC: MF5MP1 - Special Instructions: Total metals+Hg by ISM01.3, ICP-AES+ICP-MS

ICP-MS for TM+Hg= Sb/As/Ba/Be/Cd/Cr/Co/Cu/Pb/Mn/Ni/Se/Ag/TI/V/Zn

ICP-AES for TM= Al/Ca/Fe/Mg/K/Na

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TM+HG=TM + Hg-ISM01.3,ICP-MS+ICP-AES

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	(Bu Ross	5-10-12					,			7	
	Joseph Mor										

EA Project No.: 14342.74 September 2012

ATTACHMENT 6 AIR DATA SUMMARY

AIR DATA FIELD INVESTIGATION SUMMARY REPORT, MAY 2012 R&H OIL/TROPICANA ENERGY SUPERFUND SITE

Sample ID	Sample Date	Analysis Method	Dilution	Analyte	Result	Units	Qualifiers	Reporting Limit
SG-19-D	5/9/2012	TO-15	10	Acetone	110	ug/m3		59
SG-19-D	5/9/2012	TO-15	1.30208	Carbon disulfide	ND	ug/m3	U	1
SG-19-D	5/9/2012	TO-15	1.30208	Carbon tetrachloride	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	10	Chlorobenzene	ND	ug/m3	U	12
SG-19-D	5/9/2012	TO-15	1.30208	Chlorodibromomethane	ND	ug/m3	U	2.8
SG-19-D	5/9/2012	TO-15	1.30208	Chloroethane	ND	ug/m3	U	0.86
SG-19-D	5/9/2012	TO-15	1.30208	Chloroform	ND	ug/m3	U	0.32
SG-19-D	5/9/2012	TO-15	1.30208	Chloromethane	ND	ug/m3	U	0.67
SG-19-D	5/9/2012	TO-15	1.30208	Cyclohexane	11	ug/m3		1.1
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dibromoethane	ND	ug/m3	U	2.5
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dichlorobenzene	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	1.30208	Acrolein	ND	ug/m3	U	1.5
SG-19-D	5/9/2012	TO-15	1.30208	1,3-Dichlorobenzene	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	1.30208	1,4-Dichlorobenzene	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	1.30208	Dichlorodifluoromethane	ND	ug/m3	U	1.6
SG-19-D	5/9/2012	TO-15	1.30208	1,1-Dichloroethane	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dichloroethane	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	1,1-Dichloroethene	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	cis-1,2-Dichloroethene	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	trans-1,2-Dichloroethene	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	500	1,2-Dichloropropane	ND	ug/m3	U	580
SG-19-D	5/9/2012	TO-15	1.30208	cis-1,3-Dichloropropene	ND	ug/m3	U	1.5
SG-19-D	5/9/2012	TO-15	1.30208	Benzene	1.9	ug/m3		0.21
SG-19-D	5/9/2012	TO-15	1.30208	trans-1,3-Dichloropropene	ND	ug/m3	U	1.5
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ug/m3	U	2.3
SG-19-D	5/9/2012	TO-15	1.30208	1,4-Dioxane	ND	ug/m3	U	4.7
SG-19-D	5/9/2012	TO-15	1.30208	Ethyl acetate	ND	ug/m3	U	2.3
SG-19-D	5/9/2012	TO-15	1.30208	Ethylbenzene	ND	ug/m3	U	1.4
SG-19-D	5/9/2012	TO-15	1.30208	1-Ethyl-4-methylbenzene	ND	ug/m3	U	1.6
SG-19-D	5/9/2012	TO-15	1.30208	n-Heptane	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	Hexachlorobutadiene	ND	ug/m3	U	3.5
SG-19-D	5/9/2012	TO-15	1.30208	n-Hexane	2.6	ug/m3		1.1
SG-19-D	5/9/2012	TO-15	1.30208	Benzyl chloride	ND	ug/m3	U	3.4
SG-19-D	5/9/2012	TO-15	1.30208	2-Hexanone	ND	ug/m3	U	2.7
SG-19-D	5/9/2012	TO-15	500	Isopropyl alcohol	18000	ug/m3		6100
SG-19-D	5/9/2012	TO-15	10	Methylene chloride	ND	ug/m3	U	8.7
SG-19-D	5/9/2012	TO-15	1.30208	4-Methyl-2-pentanone	ND	ug/m3	U	2.7
SG-19-D	5/9/2012	TO-15	1.30208	Methyl methacrylate	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	Methyl tertiary-butyl ether	ND	ug/m3	U	1.2

EA Engineering, Science, and Technology, Inc.

Sample ID	Sample Date	Analysis Method	Dilution	Analyte	Result	Units	Qualifiers	Reporting Limit
SG-19-D	5/9/2012	TO-15	1.30208	Propene	ND	ug/m3	U	0.56
SG-19-D	5/9/2012	TO-15	1.30208	Styrene	ND	ug/m3	U	1.4
SG-19-D	5/9/2012	TO-15	1.30208	1,1,2,2-Tetrachloroethane	ND	ug/m3	U	2.2
SG-19-D	5/9/2012	TO-15	1.30208	1,3-Butadiene	ND	ug/m3	U	0.72
SG-19-D	5/9/2012	TO-15	1.30208	Tetrachloroethene	ND	ug/m3	U	0.44
SG-19-D	5/9/2012	TO-15	1.30208	Tetrahydrofuran	ND	ug/m3	U	0.96
SG-19-D	5/9/2012	TO-15	1.30208	Toluene	3.6	ug/m3		1.2
SG-19-D	5/9/2012	TO-15	1.30208	1,2,4-Trichlorobenzene	ND	ug/m3	U	2.4
SG-19-D	5/9/2012	TO-15	1.30208	1,1,1-Trichloroethane	ND	ug/m3	U	1.8
SG-19-D	5/9/2012	TO-15	1.30208	1,1,2-Trichloroethane	ND	ug/m3	U	1.8
SG-19-D	5/9/2012	TO-15	1.30208	Trichloroethene	ND	ug/m3	U	0.35
SG-19-D	5/9/2012	TO-15	1.30208	Trichlorofluoromethane	ND	ug/m3	U	1.8
SG-19-D	5/9/2012	TO-15	1.30208	1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/m3	U	2.5
SG-19-D	5/9/2012	TO-15	1.30208	1,2,4-Trimethylbenzene	2.4	ug/m3		1.6
SG-19-D	5/9/2012	TO-15	1.30208	1,3,5-Trimethylbenzene	ND	ug/m3	U	1.6
SG-19-D	5/9/2012	TO-15	1.30208	Vinyl acetate	ND	ug/m3	U	2.3
SG-19-D	5/9/2012	TO-15	1.30208	Vinyl chloride	0.27	ug/m3		0.17
SG-19-D	5/9/2012	TO-15	1.30208	meta-/para-Xylene	2.7	ug/m3		1.4
SG-19-D	5/9/2012	TO-15	1.30208	ortho-Xylene	ND	ug/m3	U	1.4
SG-19-D	5/9/2012	TO-15	1.30208	Bromodichloromethane	ND	ug/m3	U	2.2
SG-19-D	5/9/2012	TO-15	1.30208	Bromoform	ND	ug/m3	U	3.4
SG-19-D	5/9/2012	TO-15	1.30208	Bromomethane	ND	ug/m3	U	1.3

NOTE:

U = The analyte was not detected at or above the reported value.

J=The identification of the analyte is acceptable; the reported value is an estimate.

B = Blank related - The concentration found in the sample was less than 10 times the concentration found in the associated extraction, digestion, and/or analysis blank. Presence in the sample is therefore suspect.

EA Project No.: 14342.74 September 2012

EA Engineering, Science, and Technology, Inc.

ATTACHMENT 7

PRP LAB DATA REPORTS (Only on compact disc)

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-54676-1

Client Project/Site: R&H Oil

For:

Pastor, Behling & Wheeler LLC 2201 Double Creek Dr Suite 4004 Round Rock, Texas 78664

Attn: Mr. Tim Nickels

Authorized for release by:

5/30/2012 5:24:57 PM

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Designee for

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Project Manager II

sachin.kudchadkar@testamericainc.com

····· Links ·····

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

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Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
В	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits
E	Result exceeded calibration range.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
Motals	

Metals

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
₩	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TestAmerica Houston 5/30/2012

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Case Narrative

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Job ID: 600-54676-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-54676-1

Comments

No additional comments.

Receipt

The samples were received on 5/9/2012 9:28 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0° C.

Except:

One or more containers for the following sample(s) was received empty: MW-21 (11-12) (600-54676-2). Small amber 125ml container.

GC/MS VOA

Method(s) 8260B: The following sample was diluted due to high concentration of target analytes and the nature of the sample matrix: MW-21 (14-15) (600-54676-3). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The laboratory control sample (LCS) for batch 79199 exceeded control limits for the following analytes: Chloromethane, Dichlorodifluoromethane and 1,2-Dibromo-3-chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batch 78887 were outside control limits: (600-54676-7 MS), (600-54676-7 MSD). Matrix interference is suspected.

Method(s) 8260B: The continuing calibration verification (CCV) for Bromoform, trans-1,4-Dichloro-2-butene, and 1,2-Dibromo-3-chloropropane associated with batch 79199 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted.

GC/MS Semi VOA

Method(s) 8270C LL: The method blank for preparation batch 79176 contained Diethyl phthalate and Butyl benzyl phthalate above the RL and Di-n-butyl phthalate above the method detection limit. Phthalates are recognized potential laboratory contaminants and the appropriate flags have been applied to the report. The sample results associated with this method blank were below the RL; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for batch 79176 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

GC Semi VOA

Method(s) TX 1005: The continuing calibration verification (CCV) for >C12-C28 associated with batch 79161 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected range; therefore, the data have been reported.

No other analytical or quality issues were noted.

Metals

Method(s) 6010B: The method blank for batch 78888 contained aluminum, barium, and zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batch 78888 were outside control limits: (600-54676-3 MS), (600-54676-3 MSD). Matrix interference is suspected.

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Case Narrative

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Job ID: 600-54676-1 (Continued)

Laboratory: TestAmerica Houston (Continued)

Method(s) 6010B: The serial dilution performed for the following sample(s) associated with batch 78888 was outside control limits: (600-54676-3 SD)

No other analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

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Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-21 (6-7)

Lab Sample ID: 600-54676-1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	55	8	13	2.2	ug/Kg	1.03	#	8260B	Total/NA
2-Butanone (MEK)	3.5	J	13	2.5	ug/Kg	1.03	₩	8260B	Total/NA
Isopropylbenzene	5.3	J	6.6	1.2	ug/Kg	1.03	₩	8260B	Total/NA
N-Propylbenzene	10		6.6	1.3	ug/Kg	1.03	₽	8260B	Total/NA
1,2,4-Trimethylbenzene	2.7	J	6.6	1.2	ug/Kg	1.03	₩	8260B	Total/NA
sec-Butylbenzene	1.8	J	6.6	0.93	ug/Kg	1.03	₩	8260B	Total/NA
n-Butylbenzene	2.4	J	6.6	0.77	ug/Kg	1.03	₩	8260B	Total/NA
Naphthalene	40		13	3.1	ug/Kg	1.03	₩	8260B	Total/NA
2-Methylnaphthalene	11	J	22	3.5	ug/Kg	1	₽	8270C LL	Total/NA
Diethyl phthalate	16	JB	22	11	ug/Kg	1	₽	8270C LL	Total/NA
Fluorene	26		22	3.0	ug/Kg	1	₩	8270C LL	Total/NA
Phenanthrene	25		22	6.4	ug/Kg	1	₽	8270C LL	Total/NA
>C12-C28	46		13	5.2	mg/Kg	1	₩	TX 1005	Total/NA
C6-C35	46		13	9.6	mg/Kg	1	₽	TX 1005	Total/NA
Arsenic	4.0		1.2	0.27	mg/Kg	1	₽	6010B	Total/NA
Aluminum	15000	В	31	0.37	mg/Kg	1	₽	6010B	Total/NA
Barium	190	В	1.2	0.037	mg/Kg	1	₽	6010B	Total/NA
Cobalt	4.3		0.62	0.084	mg/Kg	1	₽	6010B	Total/NA
Chromium	13		0.62	0.063	mg/Kg	1	₽	6010B	Total/NA
Copper	8.6		0.62	0.21	mg/Kg	1	₽	6010B	Total/NA
Manganese	270		1.9	0.047	mg/Kg	1	₽	6010B	Total/NA
Nickel	9.8		1.2	0.14	mg/Kg	1	₽	6010B	Total/NA
Lead	12		0.62	0.13	mg/Kg	1	₩	6010B	Total/NA
Vanadium	18		0.62	0.098	mg/Kg	1	₽	6010B	Total/NA
Zinc	28	В	1.9	0.13	mg/Kg	1	₩	6010B	Total/NA
Mercury	6.6	J	64	2.1	ug/Kg	1	₽	7471A	Total/NA

Client Sample ID: MW-21 (11-12)

Lab Sample ID: 600-54676-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	33	X	10	1.7	ug/Kg	0.89	₩	8260B	Total/NA
1,1-Dichloropropene	5.4		5.0	0.65	ug/Kg	0.89	₽	8260B	Total/NA
Ethylbenzene	3.0	J	5.0	1.0	ug/Kg	0.89	₽	8260B	Total/NA
Styrene	5.7		5.0	0.71	ug/Kg	0.89	₽	8260B	Total/NA
Isopropylbenzene	170		5.0	0.92	ug/Kg	0.89	₩	8260B	Total/NA
1,2,4-Trimethylbenzene	18		5.0	0.92	ug/Kg	0.89	₩	8260B	Total/NA
sec-Butylbenzene	50		5.0	0.70	ug/Kg	0.89	₩	8260B	Total/NA
n-Butylbenzene	77		5.0	0.58	ug/Kg	0.89	₩	8260B	Total/NA
N-Propylbenzene - DL	2100		250	47	ug/Kg	1	₩	8260B	Total/NA
Naphthalene - DL	2600		500	120	ug/Kg	1	₩	8260B	Total/NA
2-Methylnaphthalene	380		19	3.1	ug/Kg	1	₩	8270C LL	Total/NA
Dibenzofuran	50		19	2.0	ug/Kg	1	₩	8270C LL	Total/NA
Fluorene	160		19	2.6	ug/Kg	1	₩	8270C LL	Total/NA
Phenanthrene	140		19	5.5	ug/Kg	1	₩	8270C LL	Total/NA
Fluoranthene	9.4	J	19	3.5	ug/Kg	1	₩	8270C LL	Total/NA
Pyrene	11	J	19	2.0	ug/Kg	1	₽	8270C LL	Total/NA
C6-C12	71		11	4.2	mg/Kg	1	₩	TX 1005	Total/NA
>C12-C28	250		11	4.5	mg/Kg	1	₩	TX 1005	Total/NA
>C28-C35	13		11	4.5	mg/Kg	1	₽	TX 1005	Total/NA
C6-C35	340		11	8.3	mg/Kg	1	₩	TX 1005	Total/NA
Arsenic	3.9		1.1	0.24	mg/Kg	1	₽	6010B	Total/NA
Aluminum	7200	В	27	0.33	mg/Kg	1	₽	6010B	Total/NA
Barium	71	В	1.1	0.033	mg/Kg	1	₽	6010B	Total/NA

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-21 (14-15)

Client Sample ID: MW-21 (11-12) (Continued)

Lab Sample ID: 600-54676-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	1.6	ē	0.55	0.074	mg/Kg	1	₩	6010B	Total/NA
Chromium	9.3		0.55	0.056	mg/Kg	1	₩	6010B	Total/NA
Copper	4.7		0.55	0.19	mg/Kg	1	₩	6010B	Total/NA
Manganese	180		1.6	0.042	mg/Kg	1	₩	6010B	Total/NA
Nickel	5.3		1.1	0.13	mg/Kg	1	₩	6010B	Total/NA
Lead	5.8		0.55	0.12	mg/Kg	1	₩	6010B	Total/NA
Vanadium	12		0.55	0.087	mg/Kg	1	₩	6010B	Total/NA
Zinc.	14	В	16	0.12	ma/Ka		₩	6010B	Total/NA

Lab Sample ID: 600-54676-3

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac		Method	Prep Type
Ethylbenzene - DL	7300	-	220	45	ug/Kg	1	₩	8260B	Total/NA
Isopropylbenzene - DL	1600		220	41	ug/Kg	1	₩	8260B	Total/NA
N-Propylbenzene - DL	3500		220	42	ug/Kg	1	₽	8260B	Total/NA
tert-Butylbenzene - DL	76	J	220	42	ug/Kg	1	₽	8260B	Total/NA
sec-Butylbenzene - DL	570		220	31	ug/Kg	1	₽	8260B	Total/NA
n-Butylbenzene - DL	950		220	26	ug/Kg	1	₽	8260B	Total/NA
Naphthalene - DL	3400		440	100	ug/Kg	1	₽	8260B	Total/NA
2-Methylnaphthalene	820		19	3.1	ug/Kg	1	₽	8270C LL	Total/NA
Dibenzofuran	85		19	2.0	ug/Kg	1	₽	8270C LL	Total/NA
Fluorene	200		19	2.7	ug/Kg	1	₽	8270C LL	Total/NA
Phenanthrene	200		19	5.6	ug/Kg	1	₽	8270C LL	Total/NA
Fluoranthene	11	J	19	3.5	ug/Kg	1	₽	8270C LL	Total/NA
Pyrene	16	J	19	2.1	ug/Kg	1	₽	8270C LL	Total/NA
C6-C12	110		11	4.3	mg/Kg	1	₽	TX 1005	Total/NA
>C12-C28	330		11	4.6	mg/Kg	1	₽	TX 1005	Total/NA
>C28-C35	16		11	4.6	mg/Kg	1	₽	TX 1005	Total/NA
C6-C35	460		11	8.4	mg/Kg	1	₽	TX 1005	Total/NA
Arsenic	6.3		1.1	0.23	mg/Kg	1	₽	6010B	Total/NA
Aluminum	5300	В	27	0.32	mg/Kg	1	₽	6010B	Total/NA
Barium	29	В	1.1	0.032	mg/Kg	1	₽	6010B	Total/NA
Cobalt	2.3		0.54	0.072	mg/Kg	1	₩	6010B	Total/NA
Chromium	6.3		0.54	0.054	mg/Kg	1	₽	6010B	Total/NA
Copper	4.9		0.54	0.19	mg/Kg	1	₽	6010B	Total/NA
Manganese	130		1.6	0.041	mg/Kg	1	₽	6010B	Total/NA
Nickel	5.7		1.1	0.12	mg/Kg	1	₽	6010B	Total/NA
Lead	6.0		0.54	0.11	mg/Kg	1	₩	6010B	Total/NA
Vanadium	16		0.54	0.085	mg/Kg	1	₽	6010B	Total/NA
Zinc	13	В	1.6	0.12	mg/Kg	1	₽	6010B	Total/NA
Mercury	6.2	J	53	1.8	ug/Kg	1	₩	7471A	Total/NA

Client Sample ID: MW-22 (8-10)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.7		1.2	0.26	mg/Kg	1	#	6010B	Total/NA
Aluminum	15000	В	30	0.35	mg/Kg	1	₩	6010B	Total/NA
Barium	52	В	1.2	0.035	mg/Kg	1	₽	6010B	Total/NA
Cobalt	4.9		0.59	0.080	mg/Kg	1	₩	6010B	Total/NA
Chromium	12		0.59	0.060	mg/Kg	1	₩	6010B	Total/NA
Copper	7.1		0.59	0.21	mg/Kg	1	₩	6010B	Total/NA
Manganese	240		1.8	0.045	mg/Kg	1	₩	6010B	Total/NA
Nickel	9.8		1.2	0.14	mg/Kg	1	₽	6010B	Total/NA

Lab Sample ID: 600-54676-4

Project/Site: R&H Oil

Client Sample ID: MW-22 (8-10) (Continued) Lab Sample ID: 600-54676-4

Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Lead	10	0.59	0.12	mg/Kg	1	#	6010B	Total/NA
Vanadium	14	0.59	0.093	mg/Kg	1	₩	6010B	Total/NA
Zinc	29 B	1.8	0.13	mg/Kg	1	₩	6010B	Total/NA

Client Sample ID: MW-22 (12-14)

Client: Pastor, Behling & Wheeler LLC

Lab Sam	nnle	ID:	600-54676-5
Lab Gail	PIC	10.	000-04010-0

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Diethyl phthalate	11	JB	19	9.3	ug/Kg	1	#	8270C LL	Total/NA
Arsenic	4.4		1.1	0.23	mg/Kg	1	₩	6010B	Total/NA
Aluminum	4900	В	27	0.32	mg/Kg	1	₩	6010B	Total/NA
Barium	23	В	1.1	0.032	mg/Kg	1	₽	6010B	Total/NA
Cobalt	2.6		0.53	0.072	mg/Kg	1	₩	6010B	Total/NA
Chromium	5.8		0.53	0.054	mg/Kg	1	₽	6010B	Total/NA
Copper	4.0		0.53	0.18	mg/Kg	1	₽	6010B	Total/NA
Manganese	140		1.6	0.041	mg/Kg	1	₽	6010B	Total/NA
Nickel	4.4		1.1	0.12	mg/Kg	1	₽	6010B	Total/NA
Lead	5.6		0.53	0.11	mg/Kg	1	₩	6010B	Total/NA
Vanadium	17		0.53	0.084	mg/Kg	1	₽	6010B	Total/NA
Zinc	11	В	1.6	0.12	mg/Kg	1	₩	6010B	Total/NA

Client Sample ID: MW-22 (18-20)

Lab Sample ID: 600-54676-6

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.86	J	4.7	0.59	ug/Kg	0.79	₩	8260B	Total/NA
Toluene	1.3	J	4.7	1.3	ug/Kg	0.79	₽	8260B	Total/NA
Isopropylbenzene	25		4.7	0.86	ug/Kg	0.79	₽	8260B	Total/NA
N-Propylbenzene	35		4.7	0.89	ug/Kg	0.79	₽	8260B	Total/NA
tert-Butylbenzene	1.2	J	4.7	0.89	ug/Kg	0.79	₽	8260B	Total/NA
1,2,4-Trimethylbenzene	1.0	J	4.7	0.86	ug/Kg	0.79	₽	8260B	Total/NA
sec-Butylbenzene	7.0		4.7	0.66	ug/Kg	0.79	₽	8260B	Total/NA
n-Butylbenzene	4.3	J	4.7	0.55	ug/Kg	0.79	₽	8260B	Total/NA
Diethyl phthalate	14	JB	20	10	ug/Kg	1	₽	8270C LL	Total/NA
Arsenic	4.5		1.2	0.26	mg/Kg	1	₽	6010B	Total/NA
Aluminum	6700	В	30	0.36	mg/Kg	1	₽	6010B	Total/NA
Barium	58	В	1.2	0.036	mg/Kg	1	₽	6010B	Total/NA
Cobalt	3.6		0.59	0.080	mg/Kg	1	₽	6010B	Total/NA
Chromium	7.3		0.59	0.060	mg/Kg	1	₽	6010B	Total/NA
Copper	4.6		0.59	0.21	mg/Kg	1	₽	6010B	Total/NA
Manganese	190		1.8	0.045	mg/Kg	1	₽	6010B	Total/NA
Nickel	6.4		1.2	0.14	mg/Kg	1	₽	6010B	Total/NA
Lead	5.4		0.59	0.12	mg/Kg	1	₩	6010B	Total/NA
Vanadium	18		0.59	0.094	mg/Kg	00.0014.0014.50	₽	6010B	Total/NA
Zinc	15	В	1.8	0.13	mg/Kg	1	₽	6010B	Total/NA

Client Sample ID: Dup -1

Lab Sample ID: 600-54676-7

Analyte	Result (Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	17		12	2.0	ug/Kg	1.09	₩	8260B	Total/NA
Arsenic	7.0		1.1	0.23	mg/Kg	1	₽	6010B	Total/NA
Aluminum	5600 E	В	27	0.32	mg/Kg	1	₽	6010B	Total/NA
Barium	29 [В	1.1	0.032	mg/Kg	1	₩	6010B	Total/NA
Cobalt	4.2		0.54	0.073	mg/Kg	1	₽	6010B	Total/NA
Chromium	6.5		0.54	0.054	mg/Kg	1	₽	6010B	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-7

CI	ient	Samp	le ID:	Dup -1	(Cont	inued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Copper	6.1		0.54	0.19	mg/Kg	1	*	6010B	Total/NA
Manganese	160		1.6	0.041	mg/Kg	1	₽	6010B	Total/NA
Nickel	5.7		1.1	0.13	mg/Kg	1	₽	6010B	Total/NA
Lead	12		0.54	0.11	mg/Kg	1	₩	6010B	Total/NA
Vanadium	25		0.54	0.085	mg/Kg	1	₽	6010B	Total/NA
Zinc	15	В	1.6	0.12	mg/Kg	1	₽	6010B	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 600-54676-8

No Detections

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9

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12

14

15

116

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-21 (6-7)

Date Collected: 05/07/12 09:30

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-1

Matrix: Solid

9									
Method: 8260B - Volatile Organi Analyte	-	(GC/MS) Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
Dichlorodifluoromethane	2.0	U	6.6	2.0	ug/Kg		05/09/12 09:29	05/09/12 13:29	1.0
Chloromethane	2.2	U	13	2.2	ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
Vinyl chloride	1.2	U	13	1.2	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
- Bromomethane	1.1	U	13	1.1	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
Chloroethane	1.9	U	13		ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
Trichlorofluoromethane	0.87	U	13	0.87	ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
1,1-Dichloroethene	1.6	U	6.6		ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
trans-1,2-Dichloroethene	1.5	U	6.6		ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
Methyl tert-butyl ether	2.4	U	6.6	2.4	ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
Acetone	55		13		ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
lodomethane	3.3	U	6.6		ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
Carbon disulfide	0.73	U	13		ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
Methylene Chloride	2.9		13		ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
cis-1,2-Dichloroethene	1.1		6.6	1.1		₩	05/09/12 09:29	05/09/12 13:29	1.0
2-Butanone (MEK)	3.5		13		ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
Carbon tetrachloride	1.5		6.6		ug/Kg		05/09/12 09:29	05/09/12 13:29	1.0
Benzene	0.83		6.6		ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
1,2-Dichloroethane	1.2		6.6		ug/Kg ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
Trichloroethene	1.9		6.6		ug/Kg	\$	05/09/12 09:29	05/09/12 13:29	1.0
1,1,1-Trichloroethane	0.98		6.6		ug/Kg ug/Kg		05/09/12 09:29	05/09/12 13:29	1.0
1,1-Dichloroethane	1.2		6.6			₩	05/09/12 09:29	05/09/12 13:29	1.0
	0.94		6.6		ug/Kg ug/Kg	т Ф	05/09/12 09:29		1.0
1,2-Dichloropropane						₩		05/09/12 13:29	
2,2-Dichloropropane Dibromomethane	2.4 0.99		6.6 6.6		ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
	0.99			0.99	ug/Kg		05/09/12 09:29	05/09/12 13:29	1.0
Chloroform			6.6		ug/Kg		05/09/12 09:29	05/09/12 13:29	1.0
Bromodichloromethane	0.87		6.6		ug/Kg	\$	05/09/12 09:29	05/09/12 13:29	1.0
1,1-Dichloropropene	0.86		6.6		ug/Kg		05/09/12 09:29	05/09/12 13:29	1.0
cis-1,3-Dichloropropene	0.71		6.6	0.71		*	05/09/12 09:29	05/09/12 13:29	1.0
4-Methyl-2-pentanone (MIBK)	1.9		13	1.9	ug/Kg	*	05/09/12 09:29	05/09/12 13:29	1.0
Toluene	1.8		6.6		ug/Kg	<u>.</u>	05/09/12 09:29	05/09/12 13:29	1.0
trans-1,3-Dichloropropene	0.77		6.6		ug/Kg	*	05/09/12 09:29	05/09/12 13:29	1.0
1,1,2-Trichloroethane	0.97		6.6	0.97	ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
Tetrachloroethene	0.94		6.6	0.94	ug/Kg		05/09/12 09:29	05/09/12 13:29	1.0
1,3-Dichloropropane	0.83		6.6		ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
2-Hexanone	1.3		13		ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
Dibromochloromethane	1.2	U	6.6		ug/Kg	#	05/09/12 09:29	05/09/12 13:29	1.0
1,2-Dibromoethane	1.3		6.6		ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
Chlorobenzene	1.3	U	6.6	1.3	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
1,1,1,2-Tetrachloroethane	1.9	U	6.6	1.9	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
Ethylbenzene	1.3	U	6.6	1.3	ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
Xylenes, Total	1.5	U	6.6	1.5	ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
Styrene	0.94	U	6.6	0.94	ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
Bromoform	1.8	U	6.6	1.8	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
Isopropylbenzene	5.3	J	6.6	1.2	ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
Bromobenzene	1.3	U	6.6	1.3	ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
1,2,3-Trichloropropane	1.7	U	6.6	1.7	ug/Kg	₩	05/09/12 09:29	05/09/12 13:29	1.0
1,1,2,2-Tetrachloroethane	1.2	U	6.6	1.2	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
N-Propylbenzene	10		6.6	1.3	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
2-Chlorotoluene	0.90	Ü	6.6		ug/Kg	\$	05/09/12 09:29	05/09/12 13:29	1.0
4-Chlorotoluene	1.1		6.6		ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0
1,3,5-Trimethylbenzene	2.1		6.6		ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.0

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54676-1

TestAmerica Job ID: 600-54676-1

Matrix: Solid Percent Solids: 77.9

Client Sample ID: MW-21 (6-7) Date Collected: 05/07/12 09:30 Date Received: 05/09/12 09:28

Method: 8260B - Volatile Organ	ic Compounds	(GC/MS) (C	ontinued)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	1.3	U	6.6	1.3	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.03
4-Isopropyltoluene	1.3	U	6.6	1.3	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.03
1,2,4-Trimethylbenzene	2.7	J	6.6	1.2	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.03
sec-Butylbenzene	1.8	J	6.6	0.93	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.03
1,3-Dichlorobenzene	0.94	U	6.6	0.94	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.03
1,4-Dichlorobenzene	0.87	U	6.6	0.87	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.03
1,2-Dichlorobenzene	1.1	U	6.6	1.1	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.03
n-Butylbenzene	2.4	J	6.6	0.77	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.03
1,2-Dibromo-3-Chloropropane	3.2	U	6.6	3.2	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.03
1,2,4-Trichlorobenzene	2.6	U	6.6	2.6	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.03
Hexachlorobutadiene	1.5	U	6.6	1.5	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.03
Naphthalene	40		13	3.1	ug/Kg	₽	05/09/12 09:29	05/09/12 13:29	1.03
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		61 - 130				05/09/12 09:29	05/09/12 13:29	1.03
Dibromofluoromethane	96		68 - 140				05/09/12 09:29	05/09/12 13:29	1.03
Toluene-d8 (Surr)	96		50 - 130				05/09/12 09:29	05/09/12 13:29	1.03
4-Bromofluorobenzene	112		57 - 140				05/09/12 09:29	05/09/12 13:29	1.03

			·				00,00,1200.20	00/00/12 /0:20	7.00
Method: 8270C LL - Semivolatil Analyte	•	oounds by Qualifier	GCMS - Low Lev		Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.8	U	26	3.8	ug/Kg	<u> </u>	05/14/12 11:18	05/14/12 16:09	1
Phenol	5.4	U	26	5.4	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
Bis(2-chloroethyl)ether	2.1	U	26	2.1	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
2-Chlorophenol	2.5	U	22	2.5	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
Benzyl alcohol	7.5	U	22	7.5	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
Bis(2-chloroisopropyl) ether	11	U	43	11	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
3 & 4 Methylphenol	3.6	U	43	3.6	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
N-Nitrosodi-n-propylamine	2.8	U	38	2.8	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
Hexachloroethane	3.0	U	22	3.0	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
Nitrobenzene	3.8	U	26	3.8	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
Isophorone	1.3	U	22	1.3	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
2-Nitrophenol	5.0	U	26	5.0	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
2,4-Dimethylphenol	11	U	32	11	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
Bis(2-chloroethoxy)methane	1.8	U	32	1.8	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
2,4-Dichlorophenol	5.0	U	26	5.0	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
4-Chloroaniline	7.5	U	51	7.5	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
4-Chloro-3-methylphenol	20	U	26	20	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
2-Methylnaphthalene	11	J	22	3.5	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
Hexachlorocyclopentadiene	5.9	U	22	5.9	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
2,4,6-Trichlorophenol	3.4	U	32	3.4	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
2,4,5-Trichlorophenol	13	U	32	13	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
2-Chloronaphthalene	1.6	U	22	1.6	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
2-Nitroaniline	6.3	U	26	6.3	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
Dimethyl phthalate	6.3	U	22	6.3	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
Acenaphthylene	1.3	U	22	1.3	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
2,6-Dinitrotoluene	3.8	U	22	3.8	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
3-Nitroaniline	9.2	U	26	9.2	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
Acenaphthene	1.8	U	22	1.8	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
2,4-Dinitrophenol	6.1	U	130	6.1	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
4-Nitrophenol	6.5	U	260	6.5	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-21 (6-7)

Project/Site: R&H Oil

Cobalt

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-1

Date Collected: 05/07/12 09:30 Matrix: Solid Date Received: 05/09/12 09:28 Percent Solids: 77.9

Analyte	ile Organic Comp Result	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fa
Dibenzofuran	2.3	8	22		ug/Kg		05/14/12 11:18	05/14/12 16:09	
2,4-Dinitrotoluene	4.6		38		ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	
Diethyl phthalate		JB	22		ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
4-Chlorophenyl phenyl ether	2.3		26		ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	esesses.
Fluorene	26	U	22		ug/Kg ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
4-Nitroaniline	14	П	26		ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
4,6-Dinitro-2-methylphenol	6.4		220		ug/Kg ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
4-Bromophenyl phenyl ether	3.6		13	3.6		₩	05/14/12 11:18	05/14/12 16:09	1
Hexachlorobenzene	2.0		22						1
					ug/Kg		05/14/12 11:18	05/14/12 16:09	
Pentachlorophenol	5.1	U	110	5.1			05/14/12 11:18	05/14/12 16:09	1
Phenanthrene	25		22	6.4	0 0	\$	05/14/12 11:18	05/14/12 16:09	1
Anthracene	1.6		22		ug/Kg		05/14/12 11:18	05/14/12 16:09	1
Di-n-butyl phthalate	3.3		26		ug/Kg		05/14/12 11:18	05/14/12 16:09	1
Fluoranthene	4.0		22		ug/Kg	₩.	05/14/12 11:18	05/14/12 16:09	1
Pyrene	2.3		22		ug/Kg		05/14/12 11:18	05/14/12 16:09	1
Butyl benzyl phthalate	7.9		26		ug/Kg	*	05/14/12 11:18	05/14/12 16:09	1
3,3'-Dichlorobenzidine	13		38	13	ug/Kg	₩.	05/14/12 11:18	05/14/12 16:09	1
Benzo[a]anthracene	1.8	U	22	1.8	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
Bis(2-ethylhexyl) phthalate	6.9	U	32	6.9	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
Chrysene	1.3	U	22	1.3	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
Di-n-octyl phthalate	2.4	U	38	2.4	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
Benzo[b]fluoranthene	2.2	U	38	2.2	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
Benzo[k]fluoranthene	1.9	U	38	1.9	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Benzo[a]pyrene	2.1	U	22	2.1	ug/Kg	₩	05/14/12 11:18	05/14/12 16:09	1
Indeno[1,2,3-cd]pyrene	4.5	U	32	4.5	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
Dibenz(a,h)anthracene	4.7	U	26	4.7	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
Benzo[g,h,i]perylene	6.5	U	26	6.5	ug/Kg	₽	05/14/12 11:18	05/14/12 16:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	65	8	23 - 96				05/14/12 11:18	05/14/12 16:09	1
Phenol-d6	68		23 - 99				05/14/12 11:18	05/14/12 16:09	1
Nitrobenzene-d5	67		36 - 98				05/14/12 11:18	05/14/12 16:09	1
2-Fluorobiphenyl	75		48 - 105				05/14/12 11:18	05/14/12 16:09	1
2,4,6-Tribromophenol	69		38 - 111				05/14/12 11:18	05/14/12 16:09	1
Terphenyl-d14	72		56 - 123				05/14/12 11:18	05/14/12 16:09	1
Method: TX 1005 - Texas - Tota	al Petroleum Hvo	rocarbon (GC)						
Analyte	•	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.9	U	13		mg/Kg	<u> </u>	05/11/12 11:58	05/11/12 23:45	1
>C12-C28	46		13		mg/Kg	₽	05/11/12 11:58	05/11/12 23:45	1
>C28-C35	5.2	U	13		mg/Kg	₽	05/11/12 11:58	05/11/12 23:45	1
C6-C35	46		13		mg/Kg	\$	05/11/12 11:58	05/11/12 23:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	87	ō	70 - 130				05/11/12 11:58	05/11/12 23:45	1
s Blackhauli COAOD - Blackala (ICD)									
Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	×	1.2	150	mg/Kg		05/09/12 11:50	05/10/12 09:30	1
Aluminum	15000	B	31		mg/Kg	₽	05/09/12 11:50	05/10/12 09:30	1
Barium	190		1.2		mg/Kg	₽	05/09/12 11:50	05/10/12 09:30	. 1
-uniditi	130		1. 4	0.001			30,00,12 11.00	33 3. IE 30.00	· · · · · · · · ·

05/10/12 09:30

05/09/12 11:50

0.62

0.084 mg/Kg

4.3

Client: Pastor, Behling & Wheeler LLC

Method: 6010B - Metals (ICP) (Continued)

Project/Site: R&H Oil

Percent Solids

Lab Sample ID: 600-54676-1

TestAmerica Job ID: 600-54676-1

05/09/12 17:17

Client Sample ID: MW-21 (6-7) Date Collected: 05/07/12 09:30 Matrix: Solid

Date Received: 05/09/12 09:28 Percent Solids: 77.9

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	13	·	0.62	0.063	mg/Kg	*	05/09/12 11:50	05/10/12 09:30	1
Copper	8.6		0.62	0.21	mg/Kg	₩	05/09/12 11:50	05/10/12 09:30	1
Manganese	270		1.9	0.047	mg/Kg	₽	05/09/12 11:50	05/10/12 09:30	1
Nickel	9.8		1.2	0.14	mg/Kg	₩	05/09/12 11:50	05/10/12 09:30	1
Lead	12		0.62	0.13	mg/Kg	₩	05/09/12 11:50	05/10/12 09:30	1
Selenium	0.32	U	2.5	0.32	mg/Kg	₽	05/09/12 11:50	05/10/12 09:30	1
Thallium	0.34	U	1.9	0.34	mg/Kg	₩	05/09/12 11:50	05/10/12 09:30	1
Vanadium	18		0.62	0.098	mg/Kg	₽	05/09/12 11:50	05/10/12 09:30	1
Zinc	28	В	1.9	0.13	mg/Kg	₽	05/09/12 11:50	05/10/12 09:30	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	6.6	J	64	2.1	ug/Kg	₩	05/10/12 09:31	05/10/12 15:49	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22	X	1.0	1.0	%	2 -2	\$1	05/09/12 17:17	1

Client Sample ID: MW-21 (11-12) Lab Sample ID: 600-54676-2

1.0

1.0 %

78

Date Collected: 05/07/12 09:35 **Matrix: Solid** to Pacaivad: 05/09/12 09:28

Method: 8260B - Volatile Orga Analyte	•	(GC/MS) Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.5	U	5.0	1.5	ug/Kg		05/09/12 09:29	05/09/12 15:27	0.89
Chloromethane	1.7	U	10	1.7	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.89
Vinyl chloride	0.90	U	10	0.90	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
Bromomethane	0.83	U	10		ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.8
Chloroethane	1.4	U	10	1.4	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.8
Trichlorofluoromethane	0.66	U	10	0.66	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.8
1,1-Dichloroethene	1.2	U	5.0	1.2	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.8
trans-1,2-Dichloroethene	1.1	U	5.0	1.1	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.8
Methyl tert-butyl ether	1.8	U	5.0	1.8	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.8
Acetone	33		10	1.7	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.8
lodomethane	2.5	U	5.0	2.5	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.8
Carbon disulfide	0.55	U	10	0.55	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.8
Methylene Chloride	2.2	U	10	2.2	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.8
cis-1,2-Dichloroethene	0.83	U	5.0	0.83	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.8
2-Butanone (MEK)	1.9	U	10	1.9	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.8
Carbon tetrachloride	1.1	Ü	5.0	1.1	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.8
Benzene	0.63	U	5.0	0.63	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.8
1,2-Dichloroethane	0.90	U	5.0	0.90	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	8.0
Trichloroethene	1.4	U	5.0	1.4	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.8
1,1,1-Trichloroethane	0.74	U	5.0	0.74	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	8.0
1,1-Dichloroethane	0.87	U	5.0	0.87	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	8.0
1,2-Dichloropropane	0.71	U	5.0	0.71	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.8
2,2-Dichloropropane	1.8	U	5.0	1.8	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	8.0
Dibromomethane	0.75	U	5.0	0.75	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	8.0
Chloroform	0.66	U	5.0	0.66	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.8
Bromodichloromethane	0.66	U	5.0	0.66	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.8
1,1-Dichloropropene	5.4		5.0	0.65	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89

TestAmerica Houston 5/30/2012

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-2

Matrix: Solid

Percent Solids: 89.3

. ,	Client	Sample	ID:	MW-21	(11-12)
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Date Collected: 05/07/12 09:35 Date Received: 05/09/12 09:28

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.54	U	5.0	0.54	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.89
4-Methyl-2-pentanone (MIBK)	1.5	U	10	1.5	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.89
Toluene	1.4	U	5.0	1.4	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
trans-1,3-Dichloropropene	0.58	U	5.0	0.58	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
1,1,2-Trichloroethane	0.73	U	5.0	0.73	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
Tetrachloroethene	0.71	U	5.0	0.71	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
1,3-Dichloropropane	0.63	U	5.0	0.63	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
2-Hexanone	1.0	U	10	1.0	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
Dibromochloromethane	0.94	U	5.0	0.94	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
1,2-Dibromoethane	1.0	U	5.0	1.0	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.89
Chlorobenzene	0.96	U	5.0	0.96	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.89
1,1,1,2-Tetrachloroethane	1.4	U	5.0	1.4	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.89
Ethylbenzene	3.0	J	5.0	1.0	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
Xylenes, Total	1.1	U	5.0	1.1	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
Styrene	5.7		5.0	0.71	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
Bromoform	1.4	U	5.0	1.4	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
Isopropylbenzene	170		5.0	0.92	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
Bromobenzene	0.99	U	5.0	0.99	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
1,2,3-Trichloropropane	1.3	U	5.0	1.3	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
1,1,2,2-Tetrachloroethane	0.87	U	5.0	0.87	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
2-Chlorotoluene	0.68	U	5.0	0.68	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
4-Chlorotoluene	0.83	U	5.0	0.83	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.89
1,3,5-Trimethylbenzene	1.6	U	5.0	1.6	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.89
tert-Butylbenzene	0.95	U	5.0	0.95	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
4-Isopropyltoluene	1.0	U	5.0	1.0	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.89
1,2,4-Trimethylbenzene	18		5.0	0.92	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.89
sec-Butylbenzene	50		5.0	0.70	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
1,3-Dichlorobenzene	0.71	Ü	5.0	0.71	ug/Kg	\$	05/09/12 09:29	05/09/12 15:27	0.89
1,4-Dichlorobenzene	0.66	U	5.0	0.66	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
1,2-Dichlorobenzene	0.80	U	5.0	0.80	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
n-Butylbenzene	77		5.0	0.58	ug/Kg	₩	05/09/12 09:29	05/09/12 15:27	0.89
1,2-Dibromo-3-Chloropropane	2.4	U	5.0	2.4	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
1,2,4-Trichlorobenzene	2.0	U	5.0	2.0	ug/Kg	₽	05/09/12 09:29	05/09/12 15:27	0.89
Hexachlorobutadiene	1.1		5.0	1.1	ug/Kg	\$	05/09/12 09:29	05/09/12 15:27	0.89
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111	-	61 - 130				05/09/12 09:29	05/09/12 15:27	0.89
Dibromofluoromethane	95		68 - 140				05/09/12 09:29	05/09/12 15:27	0.89
Toluene-d8 (Surr)	96		50 - 130				05/09/12 09:29	05/09/12 15:27	0.8
4-Bromofluorobenzene	123		57 - 140				05/09/12 09:29	05/09/12 15:27	0.89

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	2100		250	47	ug/Kg	*	05/17/12 10:00	05/17/12 20:59	1
Naphthalene	2600		500	120	ug/Kg	₽	05/17/12 10:00	05/17/12 20:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	63		61 - 130				05/17/12 10:00	05/17/12 20:59	1
Dibromofluoromethane	69		68 - 140				05/17/12 10:00	05/17/12 20:59	1
			50 - 130				05/17/12 10:00	05/17/12 20:59	1
Toluene-d8 (Surr)	92		30 - 130				03/11/12 10.00	03/11/12 20.39	,

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54676-2

TestAmerica Job ID: 600-54676-1

Matrix: Solid

Client Sample ID: MW-21 (11-12)

Date Collected: 05/07/12 09:35

Date Received: 05/09/12 09:28 Percent Solids: 89.3

Method: 8270C LL - Semivolatile Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fa
Aniline	3.3	Q	22	3.3	0	-	05/14/12 11:18	05/14/12 16:35	
Phenol	4.7		22	4.7		₽	05/14/12 11:18	05/14/12 16:35	
Bis(2-chloroethyl)ether	1.8		22	1.8	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
2-Chlorophenol	2.2		19	2.2		₽	05/14/12 11:18	05/14/12 16:35	
Benzyl alcohol	6.5		19	6.5	ug/Kg	₩	05/14/12 11:18	05/14/12 16:35	
Bis(2-chloroisopropyl) ether	9.9		37	9.9	ug/Kg	₩	05/14/12 11:18	05/14/12 16:35	
3 & 4 Methylphenol	3.1		37	3.1	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
N-Nitrosodi-n-propylamine	2.5		34	2.5		₩	05/14/12 11:18	05/14/12 16:35	
Hexachloroethane	2.6		19	2.6	ug/Kg	₩	05/14/12 11:18	05/14/12 16:35	
Vitrobenzene	3.3		22		ug/Kg	\$	05/14/12 11:18	05/14/12 16:35	
sophorone	1.1		19	1.1	ug/Kg	*	05/14/12 11:18	05/14/12 16:35	
2-Nitrophenol	4.3		22		ug/Kg	*	05/14/12 11:18	05/14/12 16:35	
2,4-Dimethylphenol	9.6		28				05/14/12 11:18	05/14/12 16:35	
Bis(2-chloroethoxy)methane	1.6		28	1.6	ug/Kg ug/Kg		05/14/12 11:18	05/14/12 16:35	
*									
2,4-Dichlorophenol	4.3		22	4.3		₩	05/14/12 11:18	05/14/12 16:35	
4-Chloroaniline	6.5		45	6.5			05/14/12 11:18	05/14/12 16:35	
4-Chloro-3-methylphenol	17	U	22	17	0 0		05/14/12 11:18	05/14/12 16:35	
2-Methylnaphthalene	380		19	3.1	ug/Kg	 	05/14/12 11:18	05/14/12 16:35	
Hexachlorocyclopentadiene	5.2		19		ug/Kg	*	05/14/12 11:18	05/14/12 16:35	
2,4,6-Trichlorophenol	3.0		28	3.0		*	05/14/12 11:18	05/14/12 16:35	
2,4,5-Trichlorophenol	11		28	11	ug/Kg		05/14/12 11:18	05/14/12 16:35	
2-Chloronaphthalene	1.4		19	1.4	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
2-Nitroaniline	5.5	U	22	5.5	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
Dimethyl phthalate	5.5	U	19	5.5	ug/Kg	*	05/14/12 11:18	05/14/12 16:35	
Acenaphthylene	1.1	U	19	1.1	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
2,6-Dinitrotoluene	3.3	U	19	3.3	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
3-Nitroaniline	8.0	U	22	8.0	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
Acenaphthene	1.6	U	19	1.6	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
2,4-Dinitrophenol	5.3	U	110	5.3	ug/Kg	≎	05/14/12 11:18	05/14/12 16:35	
1-Nitrophenol	5.7	U	220	5.7	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
Dibenzofuran	50		19	2.0	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
2,4-Dinitrotoluene	4.0	U	34	4.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	
Diethyl phthalate	9.4	U	19	9.4	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
1-Chlorophenyl phenyl ether	2.0	U	22	2.0	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
Fluorene	160		19	2.6	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
1-Nitroaniline	12	U	22	12	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
1,6-Dinitro-2-methylphenol	5.6		190		ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
4-Bromophenyl phenyl ether	3.2		11		ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
Hexachlorobenzene	1.7		19		ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
Pentachlorophenol	4.5		93		ug/Kg		05/14/12 11:18	05/14/12 16:35	
Phenanthrene	140	O	19		ug/Kg ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
Anthracene	1.4		19		ug/Kg ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
						Ф	05/14/12 11:18		
Di-n-butyl phthalate	2.9		22 19	2.9 3.5		~ ⇔	05/14/12 11:18	05/14/12 16:35	
Fluoranthene	9.4							05/14/12 16:35	
Pyrene	11		19	2.0	ug/Kg	X	05/14/12 11:18	05/14/12 16:35	
Butyl benzyl phthalate	6.9		22		ug/Kg	\$	05/14/12 11:18	05/14/12 16:35	
3,3'-Dichlorobenzidine	11		34	11	ug/Kg	\$	05/14/12 11:18	05/14/12 16:35	
Benzo[a]anthracene	1.5		19				05/14/12 11:18	05/14/12 16:35	
Bis(2-ethylhexyl) phthalate	6.0		28		ug/Kg	\$	05/14/12 11:18	05/14/12 16:35	
Chrysene	1.1	U	19	1.1	ug/Kg	₩	05/14/12 11:18	05/14/12 16:35	

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-21 (11-12)

Date Collected: 05/07/12 09:35

Date Received: 05/09/12 09:28

Project/Site: R&H Oil

General Chemistry

Percent Moisture

Percent Solids

Analyte

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-2

Matrix: Solid

Percent Solids: 89.3

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	1.9	U	34	1.9	ug/Kg	\$	05/14/12 11:18	05/14/12 16:35	
Benzo[k]fluoranthene	1.7	U	34	1.7	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
Benzo[a]pyrene	1.8	U	19	1.8	ug/Kg	₩	05/14/12 11:18	05/14/12 16:35	
Indeno[1,2,3-cd]pyrene	3.9	U	28	3.9	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
Dibenz(a,h)anthracene	4.1	U	22	4.1	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	
Benzo[g,h,i]perylene	5.7	U	22	5.7	ug/Kg	₽	05/14/12 11:18	05/14/12 16:35	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2-Fluorophenol	62	9	23 - 96				05/14/12 11:18	05/14/12 16:35	
Phenol-d6	66		23 - 99				05/14/12 11:18	05/14/12 16:35	
Nitrobenzene-d5	62		36 - 98				05/14/12 11:18	05/14/12 16:35	
2-Fluorobiphenyl	68		48 - 105				05/14/12 11:18	05/14/12 16:35	
2,4,6-Tribromophenol	61		38 - 111				05/14/12 11:18	05/14/12 16:35	1
Terphenyl-d14	65		56 - 123				05/14/12 11:18	05/14/12 16:35	1
: Method: TX 1005 - Texas - Total Pet	troleum Hyd	lrocarbon (GC)						
Analyte	_	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
C6-C12	71	X .	11	4.2	mg/Kg	\	05/11/12 11:58	05/12/12 00:20	,
>C12-C28	250		11	4.5	mg/Kg	☼	05/11/12 11:58	05/12/12 00:20	
>C28-C35	13		11	4.5	mg/Kg	₽	05/11/12 11:58	05/12/12 00:20	
C6-C35	340		11	8.3	mg/Kg	₽	05/11/12 11:58	05/12/12 00:20	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	98	-	70 - 130				05/11/12 11:58	05/12/12 00:20	1
Mothod: CO40D - Motole (ICD)									
Method: 6010B - Metals (ICP) Analyte	Result	Qualifier	MQL (Adj)	SDI	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.9		1.1	- 2	mg/Kg		05/09/12 11:50	05/10/12 09:34	1
Aluminum	7200	R	27		mg/Kg	₩	05/09/12 11:50	05/10/12 09:34	1
Barium	7200		1.1		mg/Kg	₩	05/09/12 11:50	05/10/12 09:34	
Cobalt	1.6		0.55		mg/Kg	₩	05/09/12 11:50	05/10/12 09:34	04,511,50
			0.55		mg/Kg	₩	05/09/12 11:50	05/10/12 09:34	1
Chromium	9.3		0.55						
Copper	4.7				mg/Kg	т Ф	05/09/12 11:50	05/10/12 09:34	
Manganese	180		1.6		mg/Kg	₩	05/09/12 11:50	05/10/12 09:34	,
Nickel	5.3		1.1		mg/Kg		05/09/12 11:50	05/10/12 09:34	,
Lead	5.8		0.55		mg/Kg		05/09/12 11:50	05/10/12 09:34	osloskicz
Selenium	0.28		2.2		mg/Kg	‡	05/09/12 11:50	05/10/12 09:34	1
Thallium	0.30		1.6		mg/Kg	Ф	05/09/12 11:50	05/10/12 09:34	
Vanadium	12		0.55		mg/Kg		05/09/12 11:50	05/10/12 09:34	
Zinc	14	В	1.6	0.12	mg/Kg	*	05/09/12 11:50	05/10/12 09:34	
Method: 7471A - Mercury (CVAA)		Qualifier			Unit				Dil Fac

Analyzed

05/09/12 17:17

05/09/12 17:17

Dil Fac

MQL (Adj)

1.0 1.0 SDL Unit

1.0 %

1.0 %

D

Prepared

Result Qualifier

11

89

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-3

Matrix: Solid Percent Solids: 88.9

6

Client Sample ID: MW-21 (14-15)

Date Collected: 05/07/12 09:40 Date Received: 05/09/12 09:28

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL Result Qualifier SDL D Dil Fac MQL (Adj) Unit Prepared Analyzed Dichlorodifluoromethane 68 Ū 05/17/12 10:00 05/17/12 20:36 220 68 ug/Kg 74 Chloromethane U 440 05/17/12 10:00 05/17/12 20:36 74 ug/Kg ä Vinyl chloride 40 U 440 ug/Kg 05/17/12 10:00 05/17/12 20:36 ¢ Bromomethane 37 U 440 37 05/17/12 10:00 05/17/12 20:36 ug/Kg Chloroethane 62 U 440 62 ug/Kg 05/17/12 10:00 05/17/12 20:36 ₽ 29 440 05/17/12 10:00 05/17/12 20:36 Trichlorofluoromethane 29 ug/Kg 1 # 1,1-Dichloroethene 54 U 220 54 ug/Kg 05/17/12 10:00 05/17/12 20:36 trans-1,2-Dichloroethene 50 U 220 ug/Kg 05/17/12 10:00 05/17/12 20:36 50 1 ä 81 220 Methyl tert-butyl ether 11 81 ug/Kg 05/17/12 10:00 05/17/12 20:36 Ø Acetone 74 440 74 ug/Kg 05/17/12 10:00 05/17/12 20:36 ŭ 220 Iodomethane 110 U 110 ug/Kg 05/17/12 10:00 05/17/12 20:36 ä 05/17/12 10:00 Carbon disulfide 24 U 440 24 ug/Kg 05/17/12 20:36 Ø Methylene Chloride 97 U 440 97 ug/Kg 05/17/12 10:00 05/17/12 20:36 1 cis-1,2-Dichloroethene 37 220 37 ug/Kg 05/17/12 10:00 05/17/12 20:36 440 2-Butanone (MEK) U 05/17/12 10:00 05/17/12 20:36 84 84 ug/Kg à Carbon tetrachloride 50 U 220 05/17/12 10:00 05/17/12 20:36 ug/Kg 28 220 05/17/12 10:00 Benzene U 28 ug/Kg 05/17/12 20:36 ġ 1,2-Dichloroethane 40 U 220 05/17/12 10:00 05/17/12 20:36 ug/Kg 62 U 220 ¢ 05/17/12 10:00 05/17/12 20:36 Trichloroethene 62 ug/Kg ₩ 1,1,1-Trichloroethane 33 U 220 33 ug/Kg 05/17/12 10:00 05/17/12 20:36 ₽ 1.1-Dichloroethane 39 U 220 39 ug/Kg 05/17/12 10:00 05/17/12 20:36 1 \$ 31 U 220 31 05/17/12 10:00 1,2-Dichloropropane ug/Kg 05/17/12 20:36 ₩ 2,2-Dichloropropane 81 220 81 05/17/12 10:00 05/17/12 20:36 ua/Ka ġ Dibromomethane 33 П 220 33 ug/Kg 05/17/12 10:00 05/17/12 20:36 Chloroform 29 U 220 29 ug/Kg 05/17/12 10:00 05/17/12 20:36 29 U 220 05/17/12 10:00 05/17/12 20:36 Bromodichloromethane 29 ug/Kg 29 220 05/17/12 10:00 05/17/12 20:36 1,1-Dichloropropene U 29 ug/Kg cis-1,3-Dichloropropene 24 U 220 24 05/17/12 10:00 05/17/12 20:36 ug/Kg ₩ 4-Methyl-2-pentanone (MIBK) 65 U 440 05/17/12 10:00 05/17/12 20:36 ug/Kg 61 U 220 05/17/12 10:00 Toluene 61 ug/Kg 05/17/12 20:36 * trans-1,3-Dichloropropene 26 U 220 26 ug/Kg 05/17/12 10:00 05/17/12 20:36 ₽ 1,1,2-Trichloroethane 32 U 1800 32 ug/Kg 05/17/12 10:00 05/17/12 20:36 ₩ Tetrachloroethene 31 U 220 31 ug/Kg 05/17/12 10:00 05/17/12 20:36 1,3-Dichloropropane 28 U 220 05/17/12 10:00 05/17/12 20:36 28 ua/Ka ₩ 2-Hexanone 45 U 440 45 ug/Kg 05/17/12 10:00 05/17/12 20:36 Dibromochloromethane 42 220 42 ug/Kg 05/17/12 10:00 05/17/12 20:36 ₽ 1,2-Dibromoethane 45 220 05/17/12 10:00 П 45 ug/Kg 05/17/12 20:36 ġ Chlorobenzene 43 U 220 43 ug/Kg 05/17/12 10:00 05/17/12 20:36 1,1,1,2-Tetrachloroethane 62 U 220 62 ug/Kg 05/17/12 10:00 05/17/12 20:36 220 à 05/17/12 10:00 Ethylbenzene 7300 45 ug/Kg 05/17/12 20:36 220 ug/Kg 05/17/12 20:36 Xylenes, Total 50 U 50 05/17/12 10:00 ₩ Styrene 31 U 220 31 ug/Kg 05/17/12 10:00 05/17/12 20:36 61 220 ¢ 05/17/12 10:00 Bromoform U 61 05/17/12 20:36 ug/Kg Ü 220 41 05/17/12 10:00 05/17/12 20:36 Isopropylbenzene 1600 ug/Kg 220 ug/Kg Bromobenzene 44 44 05/17/12 10:00 05/17/12 20:36 ¢ 1,2,3-Trichloropropane 58 U 220 58 ug/Kg 05/17/12 10:00 05/17/12 20:36 1,1,2,2-Tetrachloroethane 39 220 39 ug/Kg 05/17/12 10:00 05/17/12 20:36 ŭ N-Propylbenzene 3500 220 42 ug/Kg 05/17/12 10:00 05/17/12 20:36 ď 2-Chlorotoluene 30 220 30 ug/Kg 05/17/12 10:00 05/17/12 20:36 ₩ 37 220 4-Chlorotoluene 11 37 ug/Kg 05/17/12 10:00 05/17/12 20:36 1,3,5-Trimethylbenzene 71 220 ug/Kg 05/17/12 10:00 05/17/12 20:36

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-21 (14-15)

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-3

Date Collected: 05/07/12 09:40 Matrix: Solid Date Received: 05/09/12 09:28 Percent Solids: 88.9

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	76	J	220	42	ug/Kg	₽	05/17/12 10:00	05/17/12 20:36	1
4-Isopropyltoluene	45	U	220	45	ug/Kg	₽	05/17/12 10:00	05/17/12 20:36	1
1,2,4-Trimethylbenzene	41	U	220	41	ug/Kg	₽	05/17/12 10:00	05/17/12 20:36	1
sec-Butylbenzene	570		220	31	ug/Kg	₽	05/17/12 10:00	05/17/12 20:36	1
1,3-Dichlorobenzene	31	U	220	31	ug/Kg	₽	05/17/12 10:00	05/17/12 20:36	1
1,4-Dichlorobenzene	29	U	220	29	ug/Kg	₽	05/17/12 10:00	05/17/12 20:36	1
1,2-Dichlorobenzene	35	U	220	35	ug/Kg	₽	05/17/12 10:00	05/17/12 20:36	1
n-Butylbenzene	950		220	26	ug/Kg	₽	05/17/12 10:00	05/17/12 20:36	1
1,2-Dibromo-3-Chloropropane	110	U	220	110	ug/Kg	₽	05/17/12 10:00	05/17/12 20:36	1
1,2,4-Trichlorobenzene	87	U	220	87	ug/Kg	₽	05/17/12 10:00	05/17/12 20:36	1
Hexachlorobutadiene	50	U	220	50	ug/Kg	₽	05/17/12 10:00	05/17/12 20:36	1
Naphthalene	3400		440	100	ug/Kg	₩	05/17/12 10:00	05/17/12 20:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	68		61 - 130				05/17/12 10:00	05/17/12 20:36	1
Dibromofluoromethane	72		68 - 140				05/17/12 10:00	05/17/12 20:36	1
Toluene-d8 (Surr)	95		50 - 130				05/17/12 10:00	05/17/12 20:36	1
4-Bromofluorobenzene	102		57 - 140				05/17/12 10:00	05/17/12 20:36	1

च्या च									
Method: 8270C LL - Semivolatil Analyte	•	oounds by (Qualifier	GCMS - Low Lev MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.4	Ū	22	3.4	ug/Kg	*	05/14/12 11:18	05/14/12 17:01	1
Phenol	4.8	U	22	4.8	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Bis(2-chloroethyl)ether	1.9	U	22	1.9	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
2-Chlorophenol	2.2	U	19	2.2	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Benzyl alcohol	6.6	U	19	6.6	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Bis(2-chloroisopropyl) ether	9.9	U	37	9.9	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
3 & 4 Methylphenol	3.1	U	37	3.1	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
N-Nitrosodi-n-propylamine	2.5	U	34	2.5	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Hexachloroethane	2.6	U	19	2.6	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Nitrobenzene	3.3	U	22	3.3	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Isophorone	1.1	U	19	1.1	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
2-Nitrophenol	4.4	U	22	4.4	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
2,4-Dimethylphenol	9.7	U	28	9.7	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Bis(2-chloroethoxy)methane	1.6	U	28	1.6	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
2,4-Dichlorophenol	4.4	U	22	4.4	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
4-Chloroaniline	6.5	U	45	6.5	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
4-Chloro-3-methylphenol	18	U	22	18	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
2-Methylnaphthalene	820		19	3.1	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Hexachlorocyclopentadiene	5.2	U	19	5.2	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
2,4,6-Trichlorophenol	3.0	U	28	3.0	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
2,4,5-Trichlorophenol	11	U	28	11	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
2-Chloronaphthalene	1.4	U	19	1.4	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
2-Nitroaniline	5.5	U	22	5.5	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Dimethyl phthalate	5.5	U	19	5.5	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Acenaphthylene	1.1	U	19	1.1	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
2,6-Dinitrotoluene	3.3	U	19	3.3	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
3-Nitroaniline	8.0	U	22	8.0	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Acenaphthene	1.6	U	19	1.6	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
2,4-Dinitrophenol	5.3	U	110	5.3	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
4-Nitrophenol	5.7	U	220	5.7	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-21 (14-15)

Date Collected: 05/07/12 09:40

Date Received: 05/09/12 09:28

Project/Site: R&H Oil

2,4,6-Tribromophenol

Terphenyl-d14

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-3

Matrix: Solid Percent Solids: 88.9

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	85		19	2.0	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
2,4-Dinitrotoluene	4.1	U	34	4.1	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Diethyl phthalate	9.5	U	19	9.5	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
4-Chlorophenyl phenyl ether	2.0	U	22	2.0	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Fluorene	200		19	2.7	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
4-Nitroaniline	13	U	22	13	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
4,6-Dinitro-2-methylphenol	5.6	U	190	5.6	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
4-Bromophenyl phenyl ether	3.2	U	11	3.2	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Hexachlorobenzene	1.7	U	19	1.7	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Pentachlorophenol	4.5	U	94	4.5	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Phenanthrene	200		19	5.6	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Anthracene	1.4	U	19	1.4	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Di-n-butyl phthalate	2.9	U	22	2.9	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Fluoranthene	11	J	19	3.5	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Pyrene	16	J	19	2.1	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Butyl benzyl phthalate	7.0	U	22	7.0	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
3,3'-Dichlorobenzidine	11	U	34	11	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Benzo[a]anthracene	1.6	U	19	1.6	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Bis(2-ethylhexyl) phthalate	6.0	U	28	6.0	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Chrysene	1.1	U	19	1.1	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Di-n-octyl phthalate	2.1	U	34	2.1	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Benzo[b]fluoranthene	1.9	U	34	1.9	ug/Kg	₩	05/14/12 11:18	05/14/12 17:01	1
Benzo[k]fluoranthene	1.7	U	34	1.7	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Benzo[a]pyrene	1.8	U	19	1.8	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Indeno[1,2,3-cd]pyrene	3.9	U	28	3.9	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Dibenz(a,h)anthracene	4.1	U	22	4.1	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Benzo[g,h,i]perylene	5.7	U	22	5.7	ug/Kg	₽	05/14/12 11:18	05/14/12 17:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	70	∜	23 - 96				05/14/12 11:18	05/14/12 17:01	1
Phenol-d6	73		23 - 99				05/14/12 11:18	05/14/12 17:01	1
Nitrobenzene-d5	77		36 - 98				05/14/12 11:18	05/14/12 17:01	1
2-Fluorobiphenyl	73		48 - 105				05/14/12 11:18	05/14/12 17:01	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	110	%	11	4.3	mg/Kg	\$	05/11/12 11:58	05/12/12 00:55	1
>C12-C28	330		11	4.6	mg/Kg	₽	05/11/12 11:58	05/12/12 00:55	1
>C28-C35	16		11	4.6	mg/Kg	₩	05/11/12 11:58	05/12/12 00:55	1
C6-C35	460		11	8.4	mg/Kg	₽	05/11/12 11:58	05/12/12 00:55	1

38 - 111

56 - 123

69

73

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	105		70 - 130	05/11/12 11:58	05/12/12 00:55	1

Method: 6010B - Metals (ICP)									
Analyte I	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.3		1.1	0.23	mg/Kg	*	05/09/12 11:50	05/10/12 09:38	1
Aluminum	5300	В	27	0.32	mg/Kg	₽	05/09/12 11:50	05/10/12 09:38	1
Barium	29	В	1.1	0.032	mg/Kg	₽	05/09/12 11:50	05/10/12 09:38	1
Cobalt	2.3		0.54	0.072	mg/Kg	₽	05/09/12 11:50	05/10/12 09:38	1

05/14/12 11:18

05/14/12 11:18

05/14/12 17:01

05/14/12 17:01

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-21 (14-15)

Date Collected: 05/07/12 09:40

Date Received: 05/09/12 09:28

Project/Site: R&H Oil

Thallium

Zinc

Vanadium

05/10/12 09:38

05/10/12 09:38

05/10/12 09:38

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-3

05/09/12 11:50

05/09/12 11:50

05/09/12 11:50

Matrix: Solid Percent Solids: 88.9

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	6.3	0	0.54	0.054	mg/Kg	₽	05/09/12 11:50	05/10/12 09:38	1
Copper	4.9		0.54	0.19	mg/Kg	₽	05/09/12 11:50	05/10/12 09:38	1
Manganese	130		1.6	0.041	mg/Kg	₽	05/09/12 11:50	05/10/12 09:38	1
Nickel	5.7		1.1	0.12	mg/Kg	₽	05/09/12 11:50	05/10/12 09:38	1
Lead	6.0		0.54	0.11	mg/Kg	₽	05/09/12 11:50	05/10/12 09:38	1
Selenium	0.28	U	2.1	0.28	mg/Kg	₽	05/09/12 11:50	05/10/12 09:38	1

1.6

0.54

1.6

0.30 mg/Kg

0.085 mg/Kg

0.12 mg/Kg

0.30 U

13 B

16

Method: 7471A - Mercury (CVAA)								
Analyte	Result Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	6.2 J	53	1.8	ug/Kg	\$	05/10/12 09:31	05/10/12 16:01	1

General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11	X	1.0	1.0	%			05/09/12 17:17	1
Percent Solids	89		1.0	1.0	%			05/09/12 17:17	1

Client Sample ID: MW-22 (8-10) Lab Sample ID: 600-54676-4

Date Collected: 05/07/12 13:45 Matrix: Solid

Method: 8260B - Volatile Orga Analyte	•	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
Dichlorodifluoromethane	2.0	Ū	6.5	2.0	ug/Kg		05/09/12 11:30	05/09/12 12:40	1.09
Chloromethane	2.2	U	13	2.2	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
Vinyl chloride	1.2	U	13	1.2	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
Bromomethane	1.1	U	13	1.1	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
Chloroethane	1.8	U	13	1.8	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
Trichlorofluoromethane	0.86	U	13	0.86	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
1,1-Dichloroethene	1.6	U	6.5	1.6	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
trans-1,2-Dichloroethene	1.5	U	6.5	1.5	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Methyl tert-butyl ether	2.4	U	6.5	2.4	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.0
Acetone	2.2	U	13	2.2	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
lodomethane	3.3	U	6.5	3.3	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.0
Carbon disulfide	0.72	U	13	0.72	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
Methylene Chloride	2.8	U	13	2.8	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
cis-1,2-Dichloroethene	1.1	U	6.5	1.1	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
2-Butanone (MEK)	2.5	U	13	2.5	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
Carbon tetrachloride	1.5	U	6.5	1.5	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
Benzene	0.82	U	6.5	0.82	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
1,2-Dichloroethane	1.2	U	6.5	1.2	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
Trichloroethene	1.8	U	6.5	1.8	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
1,1,1-Trichloroethane	0.96	U	6.5	0.96	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
1,1-Dichloroethane	1.1	U	6.5	1.1	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
1,2-Dichloropropane	0.92	U	6.5	0.92	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
2,2-Dichloropropane	2.4	U	6.5	2.4	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
Dibromomethane	0.98	U	6.5	0.98	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
Chloroform	0.86	U	6.5	0.86	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.0
Bromodichloromethane	0.86	U	6.5	0.86	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.0
1,1-Dichloropropene	0.85	U	6.5	0.85	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-4

Matrix: Solid

Percent Solids: 83.8

Client Sample ID: MW-22 (8-10)

Date Collected: 05/07/12 13:45 Date Received: 05/09/12 09:28

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.70	Ū	6.5	0.70	ug/Kg		05/09/12 11:30	05/09/12 12:40	1.09
4-Methyl-2-pentanone (MIBK)	1.9	U	13	1.9	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
Toluene	1.8	U	6.5	1.8	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
trans-1,3-Dichloropropene	0.75	U	6.5	0.75	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
1,1,2-Trichloroethane	0.95	U	6.5	0.95	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
Tetrachloroethene	0.92	U	6.5	0.92	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
1,3-Dichloropropane	0.82	U	6.5	0.82	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
2-Hexanone	1.3	U	13	1.3	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
Dibromochloromethane	1.2	U	6.5	1.2	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
1,2-Dibromoethane	1.3	U	6.5	1.3	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
Chlorobenzene	1.2	U	6.5	1.2	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
1,1,1,2-Tetrachloroethane	1.8	U	6.5	1.8	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
Ethylbenzene	1.3	U	6.5	1.3	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
Xylenes, Total	1.5	U	6.5	1.5	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
Styrene	0.92	U	6.5	0.92	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
Bromoform	1.8	U	6.5	1.8	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
Isopropylbenzene	1.2	U	6.5	1.2	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
Bromobenzene	1.3	U	6.5	1.3	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
1,2,3-Trichloropropane	1.7	U	6.5	1.7	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
1,1,2,2-Tetrachloroethane	1.1	U	6.5	1.1	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
N-Propylbenzene	1.2	U	6.5	1.2	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
2-Chlorotoluene	0.88	U	6.5	0.88	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
4-Chlorotoluene	1.1	U	6.5	1.1	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
1,3,5-Trimethylbenzene	2.1	U	6.5	2.1	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
tert-Butylbenzene	1.2	U	6.5	1.2	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
4-Isopropyltoluene	1.3	U	6.5	1.3	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
1,2,4-Trimethylbenzene	1.2	U	6.5	1.2	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
sec-Butylbenzene	0.91	U	6.5	0.91	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
1,3-Dichlorobenzene	0.92	U	6.5	0.92	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
1,4-Dichlorobenzene	0.86	U	6.5	0.86	ug/Kg	≎	05/09/12 11:30	05/09/12 12:40	1.09
1,2-Dichlorobenzene	1.0	U	6.5	1.0	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
n-Butylbenzene	0.75	U	6.5	0.75	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
1,2-Dibromo-3-Chloropropane	3.2	U	6.5	3.2	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
1,2,4-Trichlorobenzene	2.6	U	6.5	2.6	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
Hexachlorobutadiene	1.5	U	6.5	1.5	ug/Kg	₩	05/09/12 11:30	05/09/12 12:40	1.09
Naphthalene	3.1	U	13	3.1	ug/Kg	₽	05/09/12 11:30	05/09/12 12:40	1.09
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	96	8	61 - 130				05/09/12 11:30	05/09/12 12:40	1.0
Dibromofluoromethane	98		68 - 140				05/09/12 11:30	05/09/12 12:40	1.0
Toluene-d8 (Surr)	96		50 - 130				05/09/12 11:30	05/09/12 12:40	1.09
4-Bromofluorobenzene	103		57 - 140				05/09/12 11:30	05/09/12 12:40	1.09

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.5	U	24	3.5	ug/Kg	\$	05/14/12 11:18	05/14/12 18:19	1
Phenol	5.0	U	24	5.0	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	1
Bis(2-chloroethyl)ether	2.0	U	24	2.0	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	1
2-Chlorophenol	2.3	U	20	2.3	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	1
Benzyl alcohol	6.9	U	20	6.9	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	1
Bis(2-chloroisopropyl) ether	11	U	40	11	ug/Kg	₩	05/14/12 11:18	05/14/12 18:19	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-4

Matrix: Solid Percent Solids: 83.8

Client Sample ID: MW-22 (8-10) Date Collected: 05/07/12 13:45

Date Received: 05/09/12 09:28

Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fa
3 & 4 Methylphenol	3.3	U	40	3.3	ug/Kg	#	05/14/12 11:18	05/14/12 18:19	
N-Nitrosodi-n-propylamine	2.6	U	36	2.6	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Hexachloroethane	2.7	U	20	2.7	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Nitrobenzene	3.5	U	24	3.5	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	
Isophorone	1.2	U	20	1.2	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
2-Nitrophenol	4.6	U	24	4.6	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
2,4-Dimethylphenol	10	U	30	10	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Bis(2-chloroethoxy)methane	1.7	U	30	1.7	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	
2,4-Dichlorophenol	4.6	U	24	4.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	
4-Chloroaniline	6.9	U	48	6.9	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
4-Chloro-3-methylphenol	19	U	24	19	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	
2-Methylnaphthalene	3.3	U	20	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	
Hexachlorocyclopentadiene	5.5	U	20	5.5	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
2,4,6-Trichlorophenol	3.2	U	30	3.2	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	
2,4,5-Trichlorophenol	12	U	30	12	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	
2-Chloronaphthalene	1.4	Ú	20	1.4		₽	05/14/12 11:18	05/14/12 18:19	
2-Nitroaniline	5.8	U	24	5.8	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Dimethyl phthalate	5.8	U	20	5.8	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Acenaphthylene	1.2		20		ug/Kg	\$	05/14/12 11:18	05/14/12 18:19	
2,6-Dinitrotoluene	3.5		20	3.5	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
3-Nitroaniline	8.5		24		ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Acenaphthene	1.7		20		ug/Kg		05/14/12 11:18	05/14/12 18:19	
2,4-Dinitrophenol	5.6		120	5.6	ug/Kg ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
4-Nitrophenol	6.0		240	6.0	ug/Kg ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Dibenzofuran	2.1		20	2.1	ug/Kg ug/Kg		05/14/12 11:18	05/14/12 18:19	
	4.3		36			₩			
2,4-Dinitrotoluene				4.3	ug/Kg	~ ⇔	05/14/12 11:18	05/14/12 18:19	
Diethyl phthalate	10		20	10	ug/Kg	~ \$	05/14/12 11:18	05/14/12 18:19	
4-Chlorophenyl phenyl ether	2.1		24	2.1	ug/Kg		05/14/12 11:18	05/14/12 18:19	
Fluorene	2.8		20	2.8	ug/Kg		05/14/12 11:18	05/14/12 18:19	
4-Nitroaniline	13		24	13	ug/Kg		05/14/12 11:18	05/14/12 18:19	
4,6-Dinitro-2-methylphenol	5.9		200		0 0	₩ ₩	05/14/12 11:18	05/14/12 18:19	
4-Bromophenyl phenyl ether	3.4		12			₩.	05/14/12 11:18	05/14/12 18:19	
Hexachlorobenzene	1.8		20	1.8	ug/Kg		05/14/12 11:18	05/14/12 18:19	
Pentachlorophenol	4.8		99		ug/Kg	‡	05/14/12 11:18	05/14/12 18:19	
Phenanthrene	5.9		20		ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Anthracene	1.5	U	20	1.5	ug/Kg	*	05/14/12 11:18	05/14/12 18:19	
Di-n-butyl phthalate	3.1	U	24	3.1	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Fluoranthene	3.7	U	20	3.7	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	
Pyrene	2.2	U	20	2.2	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Butyl benzyl phthalate	7.4	U	24	7.4	ug/Kg	₩	05/14/12 11:18	05/14/12 18:19	
3,3'-Dichlorobenzidine	12	U	36	12	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	
Benzo[a]anthracene	1.6	U	20	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	
Bis(2-ethylhexyl) phthalate	6.4	U	30	6.4	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Chrysene	1.2	U	20	1.2	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Di-n-octyl phthalate	2.3	U	36	2.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	
Benzo[b]fluoranthene	2.0	U	36	2.0	ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Benzo[k]fluoranthene	1.8	U	36		ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	
Benzo[a]pyrene	1.9		20		ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Indeno[1,2,3-cd]pyrene	4.2		30		ug/Kg	Þ	05/14/12 11:18	05/14/12 18:19	
Dibenz(a,h)anthracene	4.3		24		ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	
Benzo[g,h,i]perylene	6.0		24		ug/Kg ug/Kg	₽	05/14/12 11:18	05/14/12 18:19	

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54676-4

Date Collected: 05/07/12 13:45 Date Received: 05/09/12 09:28

Client Sample ID: MW-22 (8-10)

Matrix: Solid Percent Solids: 83.8

Date Received. 00/03/12 03:20					T CTCCTIL OOII	u3. 00.0
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	53	·	23 - 96	05/14/12 11:18	05/14/12 18:19	1
51 1 10				05/14/10 14 10	05// /// 0 /0 /0	

- Carrogato	,			y=0a	
2-Fluorophenol	53	23 - 96	05/14/12 11:18	05/14/12 18:19	1
Phenol-d6	54	23 - 99	05/14/12 11:18	05/14/12 18:19	1
Nitrobenzene-d5	53	36 - 98	05/14/12 11:18	05/14/12 18:19	1
2-Fluorobiphenyl	57	48 - 105	05/14/12 11:18	05/14/12 18:19	1
2,4,6-Tribromophenol	63	38 - 111	05/14/12 11:18	05/14/12 18:19	1
Terphenyl-d14	76	56 - 123	05/14/12 11:18	05/14/12 18:19	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.5	U	12	4.5	mg/Kg		05/11/12 11:58	05/12/12 02:05	1
>C12-C28	4.8	U	12	4.8	mg/Kg	₩	05/11/12 11:58	05/12/12 02:05	1
>C28-C35	4.8	U	12	4.8	mg/Kg	₩	05/11/12 11:58	05/12/12 02:05	1
C6-C35	8.9	U	12	8.9	mg/Kg	*	05/11/12 11:58	05/12/12 02:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	82		70 - 130	05/11/12 11:58	05/12/12 02:05	1

Method: 6010B - Metals (ICP)

Method. 0010D - Metals (ICF)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7	0	1.2	0.26	mg/Kg	\$	05/09/12 11:50	05/10/12 09:53	1
Aluminum	15000	В	30	0.35	mg/Kg	₩	05/09/12 11:50	05/10/12 09:53	1
Barium	52	В	1.2	0.035	mg/Kg	₽	05/09/12 11:50	05/10/12 09:53	1
Cobalt	4.9		0.59	0.080	mg/Kg	₽	05/09/12 11:50	05/10/12 09:53	1
Chromium	12		0.59	0.060	mg/Kg	₽	05/09/12 11:50	05/10/12 09:53	1
Copper	7.1		0.59	0.21	mg/Kg	₽	05/09/12 11:50	05/10/12 09:53	1
Manganese	240		1.8	0.045	mg/Kg	₩	05/09/12 11:50	05/10/12 09:53	1
Nickel	9.8		1.2	0.14	mg/Kg	₽	05/09/12 11:50	05/10/12 09:53	1
Lead	10		0.59	0.12	mg/Kg	₩	05/09/12 11:50	05/10/12 09:53	1
Selenium	0.31	U	2.4	0.31	mg/Kg	₽	05/09/12 11:50	05/10/12 09:53	1
Thallium	0.33	U	1.8	0.33	mg/Kg	₽	05/09/12 11:50	05/10/12 09:53	1
Vanadium	14		0.59	0.093	mg/Kg	₽	05/09/12 11:50	05/10/12 09:53	1
Zinc	29	В	1.8	0.13	mg/Kg	₽	05/09/12 11:50	05/10/12 09:53	1
-									

Method: 7471A - I	Mercury (CVAA)	

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.0	U	60	2.0	ug/Kg	₽	05/10/12 09:31	05/10/12 16:03	1

General Chemistry

Contrar Chomically									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16	\$	1.0	1.0	%			05/09/12 17:17	1
Percent Solids	84		1.0	1.0	%			05/09/12 17:17	1

Client Sample ID: MW-22 (12-14)

Lab Sample ID: 600-54676-5 Date Collected: 05/07/12 13:55 **Matrix: Solid** Date Received: 05/09/12 09:28 Percent Solids: 90.4

Mothod: 9260B	Volatile	Organia	Compounde	(CC/MS)

Method: 6260B - Volatile Organic C	ompounds ((GC/IVIO)							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.8	U	5.8	1.8	ug/Kg	\	05/09/12 11:30	05/09/12 13:05	1.05
Chloromethane	1.9	U	12	1.9	ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.05
Vinyl chloride	1.0	U	12	1.0	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.05
Bromomethane	0.96	U	12	0.96	ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.05
Chloroethane	1.6	U	12	1.6	ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.05

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-22 (12-14)

Date Collected: 05/07/12 13:55 Date Received: 05/09/12 09:28

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-5

Matrixa Calid

Matrix: Solid	
Percent Solids: 90.4	

Method: 8260B - Volatile Organi Analyte	-	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
richlorofluoromethane	0.77	U	12	0.77	ug/Kg	*	05/09/12 11:30	05/09/12 13:05	1.0
,1-Dichloroethene	1.4	U	5.8	1.4	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
rans-1,2-Dichloroethene	1.3	U	5.8	1.3	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
Methyl tert-butyl ether	2.1	U	5.8	2.1		₩	05/09/12 11:30	05/09/12 13:05	1.0
Acetone	1.9	U	12	1.9		₩	05/09/12 11:30	05/09/12 13:05	1.0
odomethane	2.9	U	5.8	2.9	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
Carbon disulfide	0.64	U	12	0.64	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
Methylene Chloride	2.5	U	12		ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
sis-1,2-Dichloroethene	0.96		5.8		ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.0
2-Butanone (MEK)	2.2		12		ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.0
Carbon tetrachloride	1.3		5.8		ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
Benzene	0.73		5.8		ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.0
,2-Dichloroethane	1.0		5.8		ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
Frichloroethene	1.6		5.8		ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
,1,1-Trichloroethane	0.86		5.8			₽	05/09/12 11:30	05/09/12 13:05	1.0
1,1-Dichloroethane	1.0		5.8			₽	05/09/12 11:30	05/09/12 13:05	1.0
	0.82				ug/Kg	т ф			
,2-Dichloropropane			5.8	0.82		₩	05/09/12 11:30	05/09/12 13:05	1.0
2,2-Dichloropropane	2.1		5.8	2.1	ug/Kg		05/09/12 11:30	05/09/12 13:05	1.0
Dibromomethane	0.87		5.8				05/09/12 11:30	05/09/12 13:05	1.0
Chloroform	0.77		5.8		ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
Bromodichloromethane	0.77		5.8	0.77	ug/Kg	*	05/09/12 11:30	05/09/12 13:05	1.0
,1-Dichloropropene	0.75		5.8		ug/Kg	.	05/09/12 11:30	05/09/12 13:05	1.0
sis-1,3-Dichloropropene	0.63		5.8		ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
l-Methyl-2-pentanone (MIBK)	1.7	U	12	1.7	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
Toluene	1.6	U	5.8	1.6	ug/Kg	≎	05/09/12 11:30	05/09/12 13:05	1.0
rans-1,3-Dichloropropene	0.67	U	5.8	0.67	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
,1,2-Trichloroethane	0.85	U	5.8	0.85	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
Tetrachloroethene	0.82	U	5.8	0.82	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
,3-Dichloropropane	0.73	U	5.8	0.73	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
2-Hexanone	1.2	U	12	1.2	ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.0
Dibromochloromethane	1.1	U	5.8	1.1	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
,2-Dibromoethane	1.2	U	5.8	1.2	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
Chlorobenzene	1.1	U	5.8	1.1	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
,1,1,2-Tetrachloroethane	1.6	U	5.8	1.6	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
Ethylbenzene	1.2	U	5.8		ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
ζylenes, Total	1.3	U	5.8		ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
Styrene	0.82		5.8		ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.0
Bromoform	1.6		5.8		ug/Kg	ф.	05/09/12 11:30	05/09/12 13:05	1.0
sopropylbenzene	1.1		5.8			₽	05/09/12 11:30	05/09/12 13:05	1.0
Bromobenzene	1.1		5.8		ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.0
,2,3-Trichloropropane	1.5		5.8		ug/Kg	φ.	05/09/12 11:30	05/09/12 13:05	1.0
1,1,2,2-Tetrachloroethane	1.0		5.8	1.0					
					ug/Kg		05/09/12 11:30	05/09/12 13:05	1.0
N-Propylbenzene	1.1		5.8				05/09/12 11:30	05/09/12 13:05	1.0
2-Chlorotoluene	0.79		5.8		ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.0
I-Chlorotoluene	0.96		5.8		ug/Kg	*	05/09/12 11:30	05/09/12 13:05	1.0
,3,5-Trimethylbenzene	1.9		5.8		ug/Kg	Postorijos	05/09/12 11:30	05/09/12 13:05	1.0
ert-Butylbenzene	1.1		5.8			#	05/09/12 11:30	05/09/12 13:05	1.0
l-Isopropyltoluene	1.2		5.8		ug/Kg	.	05/09/12 11:30	05/09/12 13:05	1.0
,2,4-Trimethylbenzene	1.1	U	5.8	1.1	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0
sec-Butylbenzene	0.81		5.8	0.04	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.0

Client: Pastor, Behling & Wheeler LLC

Date Received: 05/09/12 09:28

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (12-14) Lab Sample ID: 600-54676-5 Date Collected: 05/07/12 13:55 Matrix: Solid

Percent Solids: 90.4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.77	U	5.8	0.77	ug/Kg	₩	05/09/12 11:30	05/09/12 13:05	1.05
1,2-Dichlorobenzene	0.93	U	5.8	0.93	ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.05
n-Butylbenzene	0.67	U	5.8	0.67	ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.05
1,2-Dibromo-3-Chloropropane	2.8	U	5.8	2.8	ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.05
1,2,4-Trichlorobenzene	2.3	U	5.8	2.3	ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.05
Hexachlorobutadiene	1.3	U	5.8	1.3	ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.05
Naphthalene	2.8	U	12	2.8	ug/Kg	₽	05/09/12 11:30	05/09/12 13:05	1.05
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95	·	61 - 130				05/09/12 11:30	05/09/12 13:05	1.05
Dibromofluoromethane	95		68 - 140				05/09/12 11:30	05/09/12 13:05	1.05
Toluene-d8 (Surr)	98		50 - 130				05/09/12 11:30	05/09/12 13:05	1.05
4-Bromofluorobenzene	104		57 ₋ 140				05/09/12 11:30	05/09/12 13:05	1.05

	104		37 - 140				03/03/12 11.30	03/09/12 13.03	7.00
Method: 8270C LL - Semivolatile Analyte		Oounds by Qualifier	GCMS - Low Lev MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.3	U	22	3.3	ug/Kg	<u> </u>	05/14/12 11:18	05/14/12 18:45	1
Phenol	4.7	U	22	4.7	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
Bis(2-chloroethyl)ether	1.8	U	22	1.8	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
2-Chlorophenol	2.2	U	19	2.2	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
Benzyl alcohol	6.4	U	19	6.4	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
Bis(2-chloroisopropyl) ether	9.8	U	37	9.8	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
3 & 4 Methylphenol	3.1	U	37	3.1	ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	1
N-Nitrosodi-n-propylamine	2.4	U	33	2.4	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
Hexachloroethane	2.5	U	19	2.5	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
Nitrobenzene	3.3	U	22	3.3	ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	1
Isophorone	1.1	U	19	1.1	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
2-Nitrophenol	4.3	U	22	4.3	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
2,4-Dimethylphenol	9.5	U	28	9.5	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
Bis(2-chloroethoxy)methane	1.6	U	28	1.6	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
2,4-Dichlorophenol	4.3	U	22	4.3	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
4-Chloroaniline	6.4	U	44	6.4	ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	1
4-Chloro-3-methylphenol	17	U	22	17	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
2-Methylnaphthalene	3.0	U	19	3.0	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
Hexachlorocyclopentadiene	5.1	U	19	5.1	ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	1
2,4,6-Trichlorophenol	3.0	U	28	3.0	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
2,4,5-Trichlorophenol	11	U	28	11	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
2-Chloronaphthalene	1.3	U	19	1.3	ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	1
2-Nitroaniline	5.4	U	22	5.4	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
Dimethyl phthalate	5.4	U	19	5.4	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
Acenaphthylene	1.1	U	19	1.1	ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	1
2,6-Dinitrotoluene	3.3	U	19	3.3	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
3-Nitroaniline	7.9	U	22	7.9	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
Acenaphthene	1.6	U	19	1.6	ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	1
2,4-Dinitrophenol	5.2	U	110	5.2	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
4-Nitrophenol	5.6	U	220	5.6	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
Dibenzofuran	2.0	U	19	2.0	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
2,4-Dinitrotoluene	4.0	U	33	4.0	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
Diethyl phthalate	11	JB	19	9.3	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1
4-Chlorophenyl phenyl ether	2.0	U	22	2.0	ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	1
Fluorene	2.6	U	19	2.6	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	1

Nickel

Lead

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-22 (12-14) Lab Sample ID: 600-54676-5

Date Collected: 05/07/12 13:55 Matrix: Solid Date Received: 05/09/12 09:28 Percent Solids: 90.4

Method: 8270C LL - Semivolat Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fa
4-Nitroaniline	12	- C	22		ug/Kg		05/14/12 11:18	05/14/12 18:45	3
4,6-Dinitro-2-methylphenol	5.5	U	190		ug/Kg	\$	05/14/12 11:18	05/14/12 18:45	
4-Bromophenyl phenyl ether	3.1	U	11		ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	
Hexachlorobenzene	1.7		19		ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	
Pentachlorophenol	4.4	U	92		ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	
Phenanthrene	5.5		19		ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	
Anthracene	1.4		19		ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	
Di-n-butyl phthalate	2.9		22	2.9	ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	
Fluoranthene	3.4		19	3.4	ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	
Pyrene	2.0		19	2.0	ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	
Butyl benzyl phthalate	6.8		22		ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	
3,3'-Dichlorobenzidine	11		33	11	ug/Kg	₽	05/14/12 11:18	05/14/12 18:45	
Benzo[a]anthracene	1.5		19	1.5	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	
Bis(2-ethylhexyl) phthalate	5.9		28	5.9	ug/Kg ug/Kg	\$	05/14/12 11:18	05/14/12 18:45	
Chrysene	1.1		19	1.1	ug/Kg ug/Kg		05/14/12 11:18	05/14/12 18:45	
•	2.1		33	2.1	ug/Kg ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	
Di-n-octyl phthalate Benzo[b]fluoranthene	1.9		33		ug/Kg ug/Kg	*	05/14/12 11:18	05/14/12 18:45	
						₩			
Benzo[k]fluoranthene	1.6		33	1.6	ug/Kg	₩	05/14/12 11:18	05/14/12 18:45	
Benzo[a]pyrene	1.8		19	1.8	ug/Kg		05/14/12 11:18	05/14/12 18:45	
Indeno[1,2,3-cd]pyrene	3.9		28	3.9	ug/Kg	\$	05/14/12 11:18	05/14/12 18:45	
Dibenz(a,h)anthracene	4.0		22	4.0	ug/Kg	\$	05/14/12 11:18	05/14/12 18:45	
Benzo[g,h,i]perylene	5.6	U	22	5.6	ug/Kg	≎	05/14/12 11:18	05/14/12 18:45	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2-Fluorophenol	61		23 - 96				05/14/12 11:18	05/14/12 18:45	
Phenol-d6	63		23 - 99				05/14/12 11:18	05/14/12 18:45	
Nitrobenzene-d5	59		36 - 98				05/14/12 11:18	05/14/12 18:45	
2-Fluorobiphenyl	64		48 - 105				05/14/12 11:18	05/14/12 18:45	
2,4,6-Tribromophenol	64		38 - 111				05/14/12 11:18	05/14/12 18:45	
Terphenyl-d14	70		56 - 123				05/14/12 11:18	05/14/12 18:45	
Method: TX 1005 - Texas - Tota	al Petroleum Hyd	lrocarbon (GC)						
Analyte		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
C6-C12	4.2	U	11	4.2	mg/Kg	₽	05/11/12 11:58	05/14/12 10:56	
>C12-C28	4.5	U	11	4.5	mg/Kg	₩	05/11/12 11:58	05/14/12 10:56	
>C28-C35	4.5	U	11	4.5	mg/Kg	₩	05/11/12 11:58	05/14/12 10:56	
C6-C35	8.3	U	11	8.3	mg/Kg	₽	05/11/12 11:58	05/14/12 10:56	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
o-Terphenyl	89	6	70 - 130				05/11/12 11:58	05/14/12 10:56	ķ.
Method: 6010B - Metals (ICP)						_	_		
Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fa
Arsenic	4.4		1.1		mg/Kg	‡	05/09/12 11:50	05/10/12 09:57	
Aluminum	4900	В	27		mg/Kg	₩	05/09/12 11:50	05/10/12 09:57	
Barium	23	В	1.1	0.032	mg/Kg	₩	05/09/12 11:50	05/10/12 09:57	
Cobalt	2.6		0.53	0.072	mg/Kg	₩	05/09/12 11:50	05/10/12 09:57	
Chromium	5.8		0.53	0.054	mg/Kg	₩	05/09/12 11:50	05/10/12 09:57	
Copper	4.0		0.53	0.18	mg/Kg	₩	05/09/12 11:50	05/10/12 09:57	
Manganese	140		1.6	0.041	mg/Kg	₩	05/09/12 11:50	05/10/12 09:57	

05/10/12 09:57

05/10/12 09:57

05/09/12 11:50

05/09/12 11:50

1.1

0.53

0.12 mg/Kg

0.11 mg/Kg

4.4

5.6

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-22 (12-14)

Project/Site: R&H Oil

Lab Sample ID: 600-54676-5

TestAmerica Job ID: 600-54676-1

Matrix: Solid

Date Collected: 05/07/12 13:55 Date Received: 05/09/12 09:28 Percent Solids: 90.4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.28	U	2.1	0.28	mg/Kg	₩	05/09/12 11:50	05/10/12 09:57	1
Thallium	0.29	U	1.6	0.29	mg/Kg	₽	05/09/12 11:50	05/10/12 09:57	1
Vanadium	17		0.53	0.084	mg/Kg	₽	05/09/12 11:50	05/10/12 09:57	1
Zinc	11	В	1.6	0.12	mg/Kg	₩	05/09/12 11:50	05/10/12 09:57	1
Method: 7471A - Mercury (CVAA)						_	_		
Mothod: 7471A Moroum, (C\/AA)									
Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Method: 7471A - Mercury (CVAA) Analyte Mercury	Result 1.7		MQL (Adj) 51			<u>D</u>	Prepared 05/10/12 09:31	Analyzed 05/10/12 16:05	Dil Fac
Analyte									Dil Fac
Analyte Mercury	1.7			1.7					Dil Fac
Analyte Mercury General Chemistry	1.7	U	51	1.7	ug/Kg Unit		05/10/12 09:31	05/10/12 16:05	1

Client Sample ID: MW-22 (18-20) Lab Sample ID: 600-54676-6

Date Collected: 05/07/12 14:00 Matrix: Solid Date Received: 05/09/12 09:28 Percent Solids: 84.1

Analyte		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.4	U	4.7	1.4	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Chloromethane	1.6	U	9.4	1.6	ug/Kg	₩	05/09/12 11:30	05/09/12 11:54	0.79
Vinyl chloride	0.85	U	9.4	0.85	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Bromomethane	0.78	U	9.4	0.78	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Chloroethane	1.3	U	9.4	1.3	ug/Kg	₩	05/09/12 11:30	05/09/12 11:54	0.79
Trichlorofluoromethane	0.62	U	9.4	0.62	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,1-Dichloroethene	1.1	U	4.7	1.1	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
trans-1,2-Dichloroethene	1.1	U	4.7	1.1	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Methyl tert-butyl ether	1.7	U	4.7	1.7	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Acetone	1.6	U	9.4	1.6	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
lodomethane	2.3	U	4.7	2.3	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Carbon disulfide	0.52	U	9.4	0.52	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Methylene Chloride	2.1	U	9.4	2.1	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
cis-1,2-Dichloroethene	0.78	U	4.7	0.78	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
2-Butanone (MEK)	1.8	U	9.4	1.8	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Carbon tetrachloride	1.1	U	4.7	1.1	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Benzene	0.86	J	4.7	0.59	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,2-Dichloroethane	0.85	U	4.7	0.85	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Trichloroethene	1.3	U	4.7	1.3	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,1,1-Trichloroethane	0.70	U	4.7	0.70	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,1-Dichloroethane	0.82	U	4.7	0.82	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,2-Dichloropropane	0.67	U	4.7	0.67	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
2,2-Dichloropropane	1.7	U	4.7	1.7	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
Dibromomethane	0.70	U	4.7	0.70	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
Chloroform	0.62	U	4.7	0.62	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Bromodichloromethane	0.62	U	4.7	0.62	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,1-Dichloropropene	0.61	U	4.7	0.61	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
cis-1,3-Dichloropropene	0.51	U	4.7	0.51	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
4-Methyl-2-pentanone (MIBK)	1.4	U	9.4	1.4	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Toluene	1.3	J	4.7	1.3	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
trans-1,3-Dichloropropene	0.55	Ü	4.7	0.55	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,1,2-Trichloroethane	0.69	U	4.7		ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-6

Matrix: Solid Percent Solids: 84.1

Client Sample ID: MW-22 (18-20)

Date Collected: 05/07/12 14:00 Date Received: 05/09/12 09:28

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.67	U	4.7	0.67	ug/Kg	*	05/09/12 11:30	05/09/12 11:54	0.79
1,3-Dichloropropane	0.59	U	4.7	0.59	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
2-Hexanone	0.95	U	9.4	0.95	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Dibromochloromethane	0.88	U	4.7	0.88	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,2-Dibromoethane	0.96	U	4.7	0.96	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Chlorobenzene	0.90	U	4.7	0.90	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,1,1,2-Tetrachloroethane	1.3	U	4.7	1.3	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Ethylbenzene	0.96	U	4.7	0.96	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Xylenes, Total	1.1	U	4.7	1.1	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Styrene	0.67	U	4.7	0.67	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Bromoform	1.3	U	4.7	1.3	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Isopropylbenzene	25		4.7	0.86	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Bromobenzene	0.93	U	4.7	0.93	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,2,3-Trichloropropane	1.2	U	4.7	1.2	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,1,2,2-Tetrachloroethane	0.82	U	4.7	0.82	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
N-Propylbenzene	35		4.7	0.89	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
2-Chlorotoluene	0.64	U	4.7	0.64	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
4-Chlorotoluene	0.78	U	4.7	0.78	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,3,5-Trimethylbenzene	1.5	U	4.7	1.5	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
tert-Butylbenzene	1.2	J	4.7	0.89	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
4-Isopropyltoluene	0.96	U	4.7	0.96	ug/Kg	₩	05/09/12 11:30	05/09/12 11:54	0.79
1,2,4-Trimethylbenzene	1.0	J	4.7	0.86	ug/Kg	₩	05/09/12 11:30	05/09/12 11:54	0.79
sec-Butylbenzene	7.0		4.7	0.66	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,3-Dichlorobenzene	0.67	U	4.7	0.67	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,4-Dichlorobenzene	0.62	U	4.7	0.62	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,2-Dichlorobenzene	0.75	U	4.7	0.75	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
n-Butylbenzene	4.3	J	4.7	0.55	ug/Kg	₩	05/09/12 11:30	05/09/12 11:54	0.79
1,2-Dibromo-3-Chloropropane	2.3	U	4.7	2.3	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
1,2,4-Trichlorobenzene	1.9	U	4.7	1.9	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Hexachlorobutadiene	1.1	U	4.7	1.1	ug/Kg	₽	05/09/12 11:30	05/09/12 11:54	0.79
Naphthalene	2.2	U	9.4	2.2	ug/Kg	₩	05/09/12 11:30	05/09/12 11:54	0.79
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97	8-	61 - 130				05/09/12 11:30	05/09/12 11:54	0.79
Dibromofluoromethane	97		68 - 140				05/09/12 11:30	05/09/12 11:54	0.79
Toluene-d8 (Surr)	96		50 - 130				05/09/12 11:30	05/09/12 11:54	0.79
4-Bromofluorobenzene	133		57 - 140				05/09/12 11:30	05/09/12 11:54	0.79

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.5	U	24	3.5	ug/Kg	*	05/14/12 11:18	05/14/12 19:11	1
Phenol	5.0	U	24	5.0	ug/Kg	₽	05/14/12 11:18	05/14/12 19:11	1
Bis(2-chloroethyl)ether	2.0	U	24	2.0	ug/Kg	₽	05/14/12 11:18	05/14/12 19:11	1
2-Chlorophenol	2.3	U	20	2.3	ug/Kg	₽	05/14/12 11:18	05/14/12 19:11	1
Benzyl alcohol	6.9	U	20	6.9	ug/Kg	₽	05/14/12 11:18	05/14/12 19:11	1
Bis(2-chloroisopropyl) ether	11	U	40	11	ug/Kg	₽	05/14/12 11:18	05/14/12 19:11	1
3 & 4 Methylphenol	3.3	U	40	3.3	ug/Kg	₽	05/14/12 11:18	05/14/12 19:11	1
N-Nitrosodi-n-propylamine	2.6	U	36	2.6	ug/Kg	₽	05/14/12 11:18	05/14/12 19:11	1
Hexachloroethane	2.7	U	20	2.7	ug/Kg	₽	05/14/12 11:18	05/14/12 19:11	1
Nitrobenzene	3.5	U	24	3.5	ug/Kg	₽	05/14/12 11:18	05/14/12 19:11	1
Isophorone	1.2	U	20	1.2	ug/Kg	⇔	05/14/12 11:18	05/14/12 19:11	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Surrogate

Phenol-d6

2-Fluorophenol

Nitrobenzene-d5

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-6

Matrix: Solid Percent Solids: 84.1

6

Client Sample ID: MW-22 (18-20)

Date Collected: 05/07/12 14:00 Date Received: 05/09/12 09:28

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued) Result Qualifier D Prepared Analyzed Dil Fac MQL (Adj) SDL Unit 4.6 Ū 05/14/12 11:18 05/14/12 19:11 2-Nitrophenol 24 4.6 ug/Kg ¢ 10 U 30 05/14/12 11:18 2,4-Dimethylphenol ug/Kg 05/14/12 19:11 10 ä Bis(2-chloroethoxy)methane 1.7 U 30 1.7 ug/Kg 05/14/12 11:18 05/14/12 19:11 2,4-Dichlorophenol 4.6 U 24 4.6 ₽ 05/14/12 11:18 05/14/12 19:11 ug/Kg 4-Chloroaniline 6.9 U 48 6.9 ug/Kg 05/14/12 11:18 05/14/12 19:11 4-Chloro-3-methylphenol 24 05/14/12 11:18 05/14/12 19:11 19 U 19 ug/Kg ₽ 2-Methylnaphthalene 3.3 U 20 3.3 ug/Kg 05/14/12 11:18 05/14/12 19:11 5.5 U 20 5.5 05/14/12 11:18 05/14/12 19:11 Hexachlorocyclopentadiene ug/Kg ₩ 3.2 U 30 2,4,6-Trichlorophenol 3.2 ug/Kg 05/14/12 11:18 05/14/12 19:11 2,4,5-Trichlorophenol 12 30 12 ug/Kg 05/14/12 11:18 05/14/12 19:11 2-Chloronaphthalene 20 1.4 U 1.4 ug/Kg 05/14/12 11:18 05/14/12 19:11 5.8 U 24 ä 05/14/12 11:18 2-Nitroaniline 5.8 ug/Kg 05/14/12 19:11 ₩ Dimethyl phthalate 58 U 20 5.8 ug/Kg 05/14/12 11:18 05/14/12 19:11 1 Acenaphthylene 1.2 U 20 1.2 ug/Kg 05/14/12 11:18 05/14/12 19:11 20 2,6-Dinitrotoluene 35 U 3.5 05/14/12 11:18 05/14/12 19:11 ug/Kg ä 3-Nitroaniline 8.5 U 24 8.5 05/14/12 11:18 05/14/12 19:11 ug/Kg ¢ 1.7 U 20 05/14/12 11:18 Acenaphthene 1.7 ug/Kg 05/14/12 19:11 2,4-Dinitrophenol 5.6 120 5.6 05/14/12 11:18 05/14/12 19:11 U ug/Kg U 240 05/14/12 11:18 05/14/12 19:11 4-Nitrophenol 6.0 6.0 ug/Kg ¢ Dibenzofuran 2.1 U 20 2.1 ug/Kg 05/14/12 11:18 05/14/12 19:11 ₽ 05/14/12 11:18 2,4-Dinitrotoluene 4.3 U 36 4.3 ua/Ka 05/14/12 19:11 1 ₩ 05/14/12 11:18 **Diethyl phthalate** 14 20 10 ug/Kg 05/14/12 19:11 J B ug/Kg Ø 4-Chlorophenyl phenyl ether 24 2.1 05/14/12 11:18 05/14/12 19:11 21 ġ Fluorene 2.8 U 20 2.8 ug/Kg 05/14/12 11:18 05/14/12 19:11 4-Nitroaniline 13 U 24 13 ug/Kg 05/14/12 11:18 05/14/12 19:11 200 4,6-Dinitro-2-methylphenol 59 U 5.9 05/14/12 11:18 05/14/12 19:11 ug/Kg 4-Bromophenyl phenyl ether 3.4 U 12 05/14/12 11:18 05/14/12 19:11 ug/Kg Hexachlorobenzene ug/Kg 1.8 U 20 05/14/12 11:18 05/14/12 19:11 1.8 d Pentachlorophenol 4.8 U 99 4.8 05/14/12 11:18 05/14/12 19:11 ug/Kg Phenanthrene 5.9 U 20 05/14/12 11:18 05/14/12 19:11 5.9 ug/Kg ġ Anthracene 1.5 U 20 ug/Kg 05/14/12 11:18 05/14/12 19:11 ¢ Di-n-butyl phthalate 3.1 U 24 3.1 ug/Kg 05/14/12 11:18 05/14/12 19:11 ₩ Fluoranthene 3.7 U 20 3.7 ug/Kg 05/14/12 11:18 05/14/12 19:11 ₽ Pyrene 2.2 U 20 2.2 ug/Kg 05/14/12 11:18 05/14/12 19:11 # Butyl benzyl phthalate 7.4 U 24 7.4 ug/Kg 05/14/12 11:18 05/14/12 19:11 ₩ 3,3'-Dichlorobenzidine 12 U 36 ug/Kg 05/14/12 11:18 05/14/12 19:11 12 ġ Benzo[a]anthracene 20 05/14/12 11:18 05/14/12 19:11 1.6 U 1.6 ug/Kg 30 05/14/12 11:18 Bis(2-ethylhexyl) phthalate 6.4 U 6.4 ug/Kg 05/14/12 19:11 Chrysene 12 U 20 ug/Kg 05/14/12 11:18 05/14/12 19:11 1.2 Di-n-octyl phthalate 2.3 36 2.3 ä 05/14/12 11:18 05/14/12 19:11 ug/Kg Benzo[b]fluoranthene 2.0 U 36 05/14/12 11:18 2.0 ug/Kg 05/14/12 19:11 ₽ Benzo[k]fluoranthene 1.8 U 36 ug/Kg 05/14/12 11:18 05/14/12 19:11 1.9 U 20 1.9 ug/Kg 05/14/12 11:18 05/14/12 19:11 Benzo[a]pyrene # Indeno[1,2,3-cd]pyrene 4.2 U 30 05/14/12 11:18 05/14/12 19:11 ug/Kg Dibenz(a,h)anthracene 24 4.3 U 4.3 ug/Kg 05/14/12 11:18 05/14/12 19:11 Benzo[g,h,i]perylene 6.0 U 24 6.0 ug/Kg 05/14/12 11:18 05/14/12 19:11

TestAmerica Houston	

5/30/2012

Analyzed

05/14/12 19:11

05/14/12 19:11

05/14/12 19:11

Prepared

05/14/12 11:18

05/14/12 11:18

05/14/12 11:18

Dil Fac

Limits

23 - 96

23 - 99

36 - 98

Qualifier

%Recovery

64

71

63

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

o-Terphenyl

Percent Solids

Method: 7471A - Mercury (CVAA)

Client Sample ID: MW-22 (18-20)

Date Collected: 05/07/12 14:00 Date Received: 05/09/12 09:28

Lab Sample ID: 600-54676-6

05/14/12 11:30

05/09/12 17:17

05/11/12 11:58

Matrix: Solid

Percent Solids: 84.1

Method: 8270C LL - Semivo	platile Organic Compounds by	GCMS - Low Levels (Con	tinued)		
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71	48 - 105	05/14/12 11:18	05/14/12 19:11	1
2,4,6-Tribromophenol	68	38 - 111	05/14/12 11:18	05/14/12 19:11	1
Terphenyl-d14	74	56 ₋ 123	05/14/12 11:18	05/14/12 19:11	1

	Qualifier	MQL (Adj)	SDL	Unit	ט	Prepared	Analyzed	Dil Fac
4.5	U	12	4.5	mg/Kg	*	05/11/12 11:58	05/14/12 11:30	1
4.8	U	12	4.8	mg/Kg	₽	05/11/12 11:58	05/14/12 11:30	1
4.8	U	12	4.8	mg/Kg	₽	05/11/12 11:58	05/14/12 11:30	1
8.8	U	12	8.8	mg/Kg	₽	05/11/12 11:58	05/14/12 11:30	1
	4.8 4.8	4.5 U 4.8 U 4.8 U 8.8 U	4.8 U 12 4.8 U 12	4.8 U 12 4.8 4.8 U 12 4.8	4.8 U 12 4.8 mg/Kg 4.8 U 12 4.8 mg/Kg	4.8 U 12 4.8 mg/Kg 4.8 U 12 4.8 mg/Kg	4.8 U 12 4.8 mg/Kg © 05/11/12 11:58 4.8 U 12 4.8 mg/Kg © 05/11/12 11:58	4.8 U 12 4.8 mg/Kg © 05/11/12 11:58 05/14/12 11:30 4.8 U 12 4.8 mg/Kg © 05/11/12 11:58 05/14/12 11:30

70 - 130

85

84

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.5	\$ 	1.2	0.26	mg/Kg	*	05/09/12 11:50	05/10/12 10:09	1
Aluminum	6700	В	30	0.36	mg/Kg	₽	05/09/12 11:50	05/10/12 10:09	1
Barium	58	В	1.2	0.036	mg/Kg	₽	05/09/12 11:50	05/10/12 10:09	1
Cobalt	3.6		0.59	0.080	mg/Kg	₽	05/09/12 11:50	05/10/12 10:09	1
Chromium	7.3		0.59	0.060	mg/Kg	₽	05/09/12 11:50	05/10/12 10:09	1
Copper	4.6		0.59	0.21	mg/Kg	₽	05/09/12 11:50	05/10/12 10:09	1
Manganese	190		1.8	0.045	mg/Kg	₽	05/09/12 11:50	05/10/12 10:09	1
Nickel	6.4		1.2	0.14	mg/Kg	₽	05/09/12 11:50	05/10/12 10:09	1
Lead	5.4		0.59	0.12	mg/Kg	₽	05/09/12 11:50	05/10/12 10:09	1
Selenium	0.31	U	2.4	0.31	mg/Kg	₽	05/09/12 11:50	05/10/12 10:09	1
Thallium	0.33	U	1.8	0.33	mg/Kg	₽	05/09/12 11:50	05/10/12 10:09	1
Vanadium	18		0.59	0.094	mg/Kg	₽	05/09/12 11:50	05/10/12 10:09	1
Zinc	15	В	1.8	0.13	mg/Kg	₩	05/09/12 11:50	05/10/12 10:09	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.8	U	55	1.8	ug/Kg	*	05/10/12 09:31	05/10/12 16:07	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			05/09/12 17:17	1

1.0

1.0 %

Client Sample ID: Dup -1 Lab Sample ID: 600-54676-7 Date Collected: 05/07/12 00:00 **Matrix: Solid** Date Received: 05/09/12 09:28 Percent Solids: 90.4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.9	U	6.0	1.9	ug/Kg	*	05/09/12 11:30	05/09/12 12:17	1.09
Chloromethane	2.0	U	12	2.0	ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
Vinyl chloride	1.1	U	12	1.1	ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
Bromomethane	1.0	U	12	1.0	ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
Chloroethane	1.7	U	12	1.7	ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
Trichlorofluoromethane	0.80	U	12	0.80	ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
1,1-Dichloroethene	1.5	U	6.0	1.5	ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54676-7

TestAmerica Job ID: 600-54676-1

Matrix: Solid Percent Solids: 90.4

Client Sample ID: Dup -1

Date Collected: 05/07/12 00:00 Date Received: 05/09/12 09:28

Method: 8260B - Volatile Organi Analyte	•	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	1.4	84	6.0	1.4	ug/Kg		05/09/12 11:30	05/09/12 12:17	1.09
Methyl tert-butyl ether	2.2		6.0		ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
Acetone	17		12		ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
Iodomethane	3.0	U	6.0		ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
Carbon disulfide	0.66		12		ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
Methylene Chloride	2.6		12		ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
cis-1,2-Dichloroethene	1.0		6.0		ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
2-Butanone (MEK)	2.3		12		ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
Carbon tetrachloride	1.4		6.0		ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
Benzene	0.76		6.0		ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
1,2-Dichloroethane	1.1		6.0		ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
Trichloroethene	1.7		6.0		ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
1,1,1-Trichloroethane	0.89		6.0	0.89		₽	05/09/12 11:30	05/09/12 12:17	1.09
1,1-Dichloroethane	1.0		6.0	1.0		₽	05/09/12 11:30	05/09/12 12:17	1.09
1,2-Dichloropropane	0.86		6.0		ug/Kg ug/Kg		05/09/12 11:30	05/09/12 12:17	1.09
	2.2		6.0		ug/Kg ug/Kg		05/09/12 11:30	05/09/12 12:17	1.09
2,2-Dichloropropane Dibromomethane	0.90		6.0		ug/Kg ug/Kg		05/09/12 11:30	05/09/12 12:17	1.08
					50,501=818=150.	т Ф	05/09/12 11:30		
Chloroform	0.80		6.0		ug/Kg	₩		05/09/12 12:17	1.09
Bromodichloromethane	0.80		6.0	0.80			05/09/12 11:30	05/09/12 12:17	1.09
1,1-Dichloropropene	0.78		6.0		ug/Kg		05/09/12 11:30	05/09/12 12:17	1.09
cis-1,3-Dichloropropene	0.65		6.0		ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
4-Methyl-2-pentanone (MIBK)	1.8		12		ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
Toluene	1.7		6.0		ug/Kg		05/09/12 11:30	05/09/12 12:17	1.09
trans-1,3-Dichloropropene	0.70		6.0		ug/Kg	₩.	05/09/12 11:30	05/09/12 12:17	1.09
1,1,2-Trichloroethane	0.88		6.0	0.88	ug/Kg		05/09/12 11:30	05/09/12 12:17	1.09
Tetrachloroethene	0.86		6.0		ug/Kg		05/09/12 11:30	05/09/12 12:17	1.09
1,3-Dichloropropane	0.76		6.0		ug/Kg	₩.	05/09/12 11:30	05/09/12 12:17	1.09
2-Hexanone	1.2		12		ug/Kg	₩.	05/09/12 11:30	05/09/12 12:17	1.09
Dibromochloromethane	1.1		6.0		ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
1,2-Dibromoethane	1.2		6.0		ug/Kg	*	05/09/12 11:30	05/09/12 12:17	1.09
Chlorobenzene	1.2		6.0		ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
1,1,1,2-Tetrachloroethane	1.7		6.0		ug/Kg		05/09/12 11:30	05/09/12 12:17	1.09
Ethylbenzene	1.2	U	6.0	1.2	ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
Xylenes, Total	1.4		6.0	1.4	ug/Kg	*	05/09/12 11:30	05/09/12 12:17	1.09
Styrene	0.86	U	6.0	0.86	ug/Kg	.	05/09/12 11:30	05/09/12 12:17	1.09
Bromoform	1.7	U	6.0		ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
Isopropylbenzene	1.1	U	6.0	1.1	ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
Bromobenzene	1.2	U	6.0	1.2	ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
1,2,3-Trichloropropane	1.6	U	6.0	1.6	ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
1,1,2,2-Tetrachloroethane	1.0	U	6.0	1.0	ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
N-Propylbenzene	1.1	U	6.0	1.1	ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
2-Chlorotoluene	0.82	U	6.0	0.82	ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
4-Chlorotoluene	1.0	U	6.0	1.0	ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
1,3,5-Trimethylbenzene	1.9	U	6.0	1.9	ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
tert-Butylbenzene	1.1	U	6.0	1.1	ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
4-Isopropyltoluene	1.2	U	6.0	1.2	ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
1,2,4-Trimethylbenzene	1.1	U	6.0	1.1	ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
sec-Butylbenzene	0.84	U	6.0	0.84	ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
1,3-Dichlorobenzene	0.86		6.0		ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
1,4-Dichlorobenzene	0.80	U	6.0		ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
1,2-Dichlorobenzene	0.96		6.0		ug/Kg	ф	05/09/12 11:30	05/09/12 12:17	1.09

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-7

Client Sample ID: Dup -1 Date Collected: 05/07/12 00:00 Matrix: Solid Date Received: 05/09/12 09:28 Percent Solids: 90.4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	0.70	U	6.0	0.70	ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
1,2-Dibromo-3-Chloropropane	2.9	U	6.0	2.9	ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
1,2,4-Trichlorobenzene	2.4	U	6.0	2.4	ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
Hexachlorobutadiene	1.4	U	6.0	1.4	ug/Kg	₽	05/09/12 11:30	05/09/12 12:17	1.09
Naphthalene	2.9	U	12	2.9	ug/Kg	₩	05/09/12 11:30	05/09/12 12:17	1.09
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93	()	61 - 130				05/09/12 11:30	05/09/12 12:17	1.09
Dibromofluoromethane	96		68 - 140				05/09/12 11:30	05/09/12 12:17	1.09
Toluene-d8 (Surr)	92		50 - 130				05/09/12 11:30	05/09/12 12:17	1.09
4-Bromofluorobenzene	98		57 - 140				05/09/12 11:30	05/09/12 12:17	1.09

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.3	U	22	3.3	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
Phenol	4.7	U	22	4.7	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
Bis(2-chloroethyl)ether	1.8	U	22	1.8	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
2-Chlorophenol	2.2	U	19	2.2	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
Benzyl alcohol	6.4	U	19	6.4	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
Bis(2-chloroisopropyl) ether	9.7	U	37	9.7	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
3 & 4 Methylphenol	3.1	U	37	3.1	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
N-Nitrosodi-n-propylamine	2.4	U	33	2.4	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
Hexachloroethane	2.5	U	19	2.5	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
Nitrobenzene	3.3	U	22	3.3	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
Isophorone	1.1	U	19	1.1	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
2-Nitrophenol	4.3	U	22	4.3	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
2,4-Dimethylphenol	9.4	U	27	9.4	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
Bis(2-chloroethoxy)methane	1.6	U	27	1.6	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
2,4-Dichlorophenol	4.3	U	22	4.3	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
4-Chloroaniline	6.4	U	44	6.4	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
4-Chloro-3-methylphenol	17	U	22	17	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
2-Methylnaphthalene	3.0	U	19	3.0	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
Hexachlorocyclopentadiene	5.1	U	19	5.1	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
2,4,6-Trichlorophenol	2.9	U	27	2.9	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
2,4,5-Trichlorophenol	11	U	27	11	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
2-Chloronaphthalene	1.3	U	19	1.3	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
2-Nitroaniline	5.4	U	22	5.4	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
Dimethyl phthalate	5.4	U	19	5.4	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
Acenaphthylene	1.1	U	19	1.1	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
2,6-Dinitrotoluene	3.2	U	19	3.2	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
3-Nitroaniline	7.9	U	22	7.9	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
Acenaphthene	1.6	U	19	1.6	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
2,4-Dinitrophenol	5.2	U	110	5.2	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
4-Nitrophenol	5.6	U	220	5.6	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
Dibenzofuran	2.0	U	19	2.0	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
2,4-Dinitrotoluene	4.0	U	33	4.0	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
Diethyl phthalate	9.3	U	19	9.3	ug/Kg	₩	05/14/12 11:18	05/14/12 19:37	1
4-Chlorophenyl phenyl ether	2.0	U	22	2.0	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
Fluorene	2.6	U	19	2.6	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
4-Nitroaniline	12	U	22	12	ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1
4,6-Dinitro-2-methylphenol	5.5	U	190		ug/Kg	₽	05/14/12 11:18	05/14/12 19:37	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54676-7

TestAmerica Job ID: 600-54676-1

Matrix: Solid Percent Solids: 90.4

6

Client Sample ID: Dup -1 Date Collected: 05/07/12 00:00 Date Received: 05/09/12 09:28

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued) Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac ₩ 4-Bromophenyl phenyl ether 3.1 U 11 ug/Kg 05/14/12 11:18 05/14/12 19:37 3.1 1.7 U 19 05/14/12 11:18 Hexachlorobenzene ug/Kg 05/14/12 19:37 1.7 Þ Pentachlorophenol 4.4 U 92 4.4 ug/Kg 05/14/12 11:18 05/14/12 19:37 Phenanthrene 5.4 U 19 ug/Kg 05/14/12 11:18 05/14/12 19:37 5.4 ₩ Anthracene 1.4 U 19 1.4 ug/Kg 05/14/12 11:18 05/14/12 19:37 Di-n-butyl phthalate 2.8 U 22 05/14/12 11:18 05/14/12 19:37 2.8 ug/Kg ₽ Fluoranthene 3.4 U 19 3.4 ug/Kg 05/14/12 11:18 05/14/12 19:37 Pyrene 2.0 U 19 2.0 ug/Kg 05/14/12 11:18 05/14/12 19:37 Butyl benzyl phthalate 6.8 U 22 05/14/12 11:18 6.8 ug/Kg 05/14/12 19:37 3,3'-Dichlorobenzidine 33 05/14/12 11:18 11 U 11 ug/Kg 05/14/12 19:37 ₩ Benzo[a]anthracene 1.5 U 19 05/14/12 11:18 05/14/12 19:37 1.5 ug/Kg \$ Bis(2-ethylhexyl) phthalate 5.9 U 27 5.9 05/14/12 11:18 05/14/12 19:37 ug/Kg 05/14/12 11:18 Chrysene 1.1 U 19 1.1 ug/Kg 05/14/12 19:37 ₩ Di-n-octyl phthalate 2.1 33 2.1 ug/Kg 05/14/12 11:18 05/14/12 19:37 Benzo[b]fluoranthene 1.9 U 33 05/14/12 11:18 ug/Kg 05/14/12 19:37 1.9 Benzo[k]fluoranthene 1.6 U 33 05/14/12 11:18 05/14/12 19:37 ug/Kg 1.8 U 19 05/14/12 11:18 Benzo[a]pyrene 1.8 ug/Kg 05/14/12 19:37 # Indeno[1,2,3-cd]pyrene 3.8 U 27 ug/Kg 05/14/12 11:18 05/14/12 19:37 Dibenz(a,h)anthracene 4.0 U 22 ug/Kg 05/14/12 11:18 05/14/12 19:37 4.0 05/14/12 11:18 05/14/12 19:37 Benzo[g,h,i]perylene 5.6 U 22 5.6 ug/Kg Dil Fac Surrogate %Recovery Qualifier Limits Prepared Analyzed 2-Fluorophenol 67 23 - 96 05/14/12 11:18 05/14/12 19:37 Phenol-d6 68 23 - 99 05/14/12 11:18 05/14/12 19:37

Anal		Result Qualifier	MQL (Adj)	SDL Unit	D	Prepared	Analyzed	Dil Fac
Met	hod: TX 1005 - Texas - Total Pet	roleum Hydrocarbon (GC)					
Terp	henyl-d14	73	56 - 123			05/14/12 11:18	05/14/12 19:37	1
2,4,6	-Tribromophenol	70	38 - 111			05/14/12 11:18	05/14/12 19:37	1
2-Flu	orobiphenyl	71	48 - 105			05/14/12 11:18	05/14/12 19:37	1
Nitro	benzene-d5	65	36 - 98			05/14/12 11:18	05/14/12 19:37	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.2	U	11	4.2	mg/Kg	<u> </u>	05/11/12 11:58	05/14/12 12:05	1
>C12-C28	4.5	U	11	4.5	mg/Kg	₽	05/11/12 11:58	05/14/12 12:05	1
>C28-C35	4.5	U	11	4.5	mg/Kg	₽	05/11/12 11:58	05/14/12 12:05	1
C6-C35	8.3	U	11	8.3	mg/Kg	₽	05/11/12 11:58	05/14/12 12:05	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	85	70 - 130	05/11/12 11:58	05/14/12 12:05	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.0	X-	1.1	0.23	mg/Kg	*	05/09/12 11:50	05/10/12 10:13	1
Aluminum	5600	В	27	0.32	mg/Kg	₽	05/09/12 11:50	05/10/12 10:13	1
Barium	29	В	1.1	0.032	mg/Kg	₽	05/09/12 11:50	05/10/12 10:13	1
Cobalt	4.2		0.54	0.073	mg/Kg	₽	05/09/12 11:50	05/10/12 10:13	1
Chromium	6.5		0.54	0.054	mg/Kg	₽	05/09/12 11:50	05/10/12 10:13	1
Copper	6.1		0.54	0.19	mg/Kg	₽	05/09/12 11:50	05/10/12 10:13	1
Manganese	160		1.6	0.041	mg/Kg	₽	05/09/12 11:50	05/10/12 10:13	1
Nickel	5.7		1.1	0.13	mg/Kg	₽	05/09/12 11:50	05/10/12 10:13	1
Lead	12		0.54	0.11	mg/Kg	₽	05/09/12 11:50	05/10/12 10:13	1
Selenium	0.28	U	2.1	0.28	mg/Kg	₽	05/09/12 11:50	05/10/12 10:13	1
Thallium	0.30	U	1.6	0.30	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54676-7

TestAmerica Job ID: 600-54676-1

Matrix: Solid

Percent Solids: 90.4

C	lie	nt	Sa	ım	ы	е	ID	:	DI	up	-1
_		_									_

Date Collected: 05/07/12 00:00 Date Received: 05/09/12 09:28

Method: 6010B - Metals (ICP) (Continue Analyte	,	Qualifier	MQL (Adj)	eni	Unit	D	Prepared	Analyzed	Dil Fac
<u> </u>		Qualifier						· //	DII Fac
Vanadium	25		0.54	0.085	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1
Zinc	15	В	1.6	0.12	mg/Kg	\$	05/09/12 11:50	05/10/12 10:13	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.8	U	54	1.8	ug/Kg	*	05/10/12 09:31	05/10/12 16:09	1
General Chemistry									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.6	8-	1.0	1.0	%			05/09/12 17:17	1
Percent Solids	90		1.0	1.0	%			05/09/12 17:17	1

Client Sample ID: Trip Blank

Date Collected: 05/07/12 00:00

Date Received: 05/09/12 09:28

1,3-Dichloropropane

Lab	Sample	ID:	600	-54	1676-8	

Matrix: Water

Analyte		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L		2	05/14/12 17:36	1
Chloromethane	0.18	U *	2.0	0.18	ug/L			05/14/12 17:36	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/14/12 17:36	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/14/12 17:36	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/14/12 17:36	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/14/12 17:36	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/14/12 17:36	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/14/12 17:36	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/14/12 17:36	1
Acetone	0.99	U	5.0	0.99	ug/L			05/14/12 17:36	1
lodomethane	2.0	U	2.0	2.0	ug/L			05/14/12 17:36	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/14/12 17:36	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/14/12 17:36	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/14/12 17:36	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/14/12 17:36	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/14/12 17:36	1
Benzene	0.080	U	1.0	0.080	ug/L			05/14/12 17:36	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/14/12 17:36	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/14/12 17:36	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/14/12 17:36	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/14/12 17:36	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/14/12 17:36	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/14/12 17:36	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/14/12 17:36	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/14/12 17:36	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/14/12 17:36	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/14/12 17:36	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/14/12 17:36	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/14/12 17:36	1
Toluene	0.15	U	1.0	0.15	ug/L			05/14/12 17:36	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/14/12 17:36	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/14/12 17:36	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/14/12 17:36	1

05/14/12 17:36

1.0

0.22 ug/L

0.22 U

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID: 600-54676-8

Matrix: Water

Client Sample ID: Trip Blank

Date Collected: 05/07/12 00:00 Date Received: 05/09/12 09:28

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/14/12 17:36	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/14/12 17:36	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/14/12 17:36	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/14/12 17:36	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/14/12 17:36	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/14/12 17:36	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/14/12 17:36	1
Styrene	0.070	U	1.0	0.070	ug/L			05/14/12 17:36	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/14/12 17:36	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/14/12 17:36	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/14/12 17:36	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/14/12 17:36	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/14/12 17:36	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/14/12 17:36	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/14/12 17:36	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/14/12 17:36	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/14/12 17:36	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/14/12 17:36	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/14/12 17:36	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/14/12 17:36	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/14/12 17:36	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/14/12 17:36	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/14/12 17:36	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/14/12 17:36	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/14/12 17:36	1
1,2-Dibromo-3-Chloropropane	0.81	U *	1.0	0.81	ug/L			05/14/12 17:36	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/14/12 17:36	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/14/12 17:36	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/14/12 17:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94	ν-	67 - 139			-		05/14/12 17:36	1
Dibromofluoromethane	81		62 - 130					05/14/12 17:36	1
Toluene-d8 (Surr)	88		70 - 130					05/14/12 17:36	1
1,2-Dichloroethane-d4 (Surr)	79		50 - 134					05/14/12 17:36	1

Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	5.0	1.4	ug/Kg	8260B
1,1,1,2-Tetrachloroethane	1.0	0.18	ug/L	8260B
I,1,1-Trichloroethane	5.0	0.74	ug/Kg	8260B
I,1,1-Trichloroethane	1.0	0.15	ug/L	8260B
1,1,2,2-Tetrachloroethane	5.0	0.87	ug/Kg	8260B
1,1,2,2-Tetrachloroethane	1.0	0.22	ug/L	8260B
I,1,2-Trichloroethane	5.0	0.73	ug/Kg	8260B
I,1,2-Trichloroethane	40	0.73	ug/Kg	8260B
1,1,2-Trichloroethane	1.0	0.28	ug/L	8260B
1,1-Dichloroethane	5.0	0.87	ug/Kg	8260B
1,1-Dichloroethane	1.0	0.11	ug/L	8260B
I,1-Dichloroethene	5.0	1.2	ug/Kg	8260B
1,1-Dichloroethene	1.0	0.19	ug/L	8260B
I,1-Dichloropropene	5.0	0.65	ug/Kg	8260B
I,1-Dichloropropene	1.0	0.21	ug/L	8260B
I,2,3-Trichloropropane	5.0	1.3	ug/Kg	8260B
1,2,3-Trichloropropane	1.0	0.29	ug/L	8260B
I,2,4-Trichlorobenzene	5.0	2.0	ug/E ug/Kg	8260B
1,2,4-Trichlorobenzene	1.0	0.31	ug/kg	8260B
1,2,4-Tricniorobenzene 1,2,4-Trimethylbenzene	5.0	0.31	ug/L ug/Kg	8260B
1,2,4-Trimethylbenzene	1.0	0.14		8260B
			ug/L	
I,2-Dibromo-3-Chloropropane	5.0	2.4	ug/Kg	8260B
,2-Dibromo-3-Chloropropane	1.0	0.81	ug/L	8260B
,2-Dibromoethane	5.0	1.0	ug/Kg	8260B
I,2-Dibromoethane	1.0	0.18	ug/L	8260B
I,2-Dichlorobenzene	5.0	0.80	ug/Kg 	8260B
I,2-Dichlorobenzene	1.0	0.10	ug/L	8260B
I,2-Dichloroethane	5.0	0.90	ug/Kg	8260B
I,2-Dichloroethane	1.0	0.14	ug/L	8260B
1,2-Dichloropropane	5.0	0.71	ug/Kg	8260B
1,2-Dichloropropane	1.0	0.16	ug/L	8260B
1,3,5-Trimethylbenzene	5.0	1.6	ug/Kg	8260B
I,3,5-Trimethylbenzene	1.0	0.10	ug/L	8260B
1,3-Dichlorobenzene	5.0	0.71	ug/Kg	8260B
1,3-Dichlorobenzene	1.0	0.13	ug/L	8260B
1,3-Dichloropropane	5.0	0.63	ug/Kg	8260B
,3-Dichloropropane	1.0	0.22	ug/L	8260B
,4-Dichlorobenzene	5.0	0.66	ug/Kg	8260B
,4-Dichlorobenzene	1.0	0.11	ug/L	8260B
2,2-Dichloropropane	5.0	1.8	ug/Kg	8260B
2,2-Dichloropropane	1.0	0.13	ug/L	8260B
2-Butanone (MEK)	10	1.9	ug/Kg	8260B
2-Butanone (MEK)	2.0	0.76	ug/L	8260B
2-Chlorotoluene	5.0	0.68	ug/Kg	8260B
2-Chlorotoluene	1.0	0.13	ug/L	8260B
2-Hexanone	10	1.0	ug/Kg	8260B
2-Hexanone	2.0	0.35	ug/L	8260B
4-Chlorotoluene	5.0	0.83	ug/Kg	8260B
I-Chlorotoluene	1.0	0.14	ug/L	8260B
I-Isopropyltoluene	5.0	1.0	ug/Kg	8260B
1-Isopropyltoluene	1.0	0.10	ug/L	8260B
-Methyl-2-pentanone (MIBK)	1.0 	1.5	ug/Kg	8260B
I-Methyl-2-pentanone (MIBK)	2.0	0.45	ug/kg ug/L	8260B

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	MQL	MDL	Units	Method
Acetone	10	1.7	ug/Kg	8260B
Acetone	5.0	0.99	ug/L	8260B
Benzene	5.0	0.63	ug/Kg	8260B
Benzene	1.0	0.080	ug/L	8260B
Bromobenzene	5.0	0.99	ug/Kg	8260B
Bromobenzene	1.0	0.19	ug/L	8260B
Bromodichloromethane	5.0	0.66	ug/Kg	8260B
Bromodichloromethane	1.0	0.16	ug/L	8260B
Bromoform	5.0	1.4	ug/Kg	8260B
Bromoform	1.0	0.19	ug/L	8260B
Bromomethane	10	0.83	ug/Kg	8260B
Bromomethane	2.0	0.25	ug/L	8260B
Carbon disulfide	10	0.55	ug/Kg	8260B
Carbon disulfide	2.0	0.24	ug/L	8260B
Carbon tetrachloride	5.0	1.1	ug/Kg	8260B
Carbon tetrachloride	1.0	0.15	ug/L	8260B
Chlorobenzene	5.0	0.96	ug/Kg	8260B
Chlorobenzene	1.0	0.12	ug/L	8260B
Chloroethane	10	1.4	ug/Kg	8260B
Chloroethane	2.0	0.080	ug/L	8260B
Chloroform	5.0	0.66	ug/Kg	8260B
Chloroform	1.0	0.13	ug/L	8260B
Chloromethane	10	1.7	ug/Kg	8260B
Chloromethane	2.0	0.18	ug/L	8260B
cis-1,2-Dichloroethene	5.0	0.83	ug/Kg	8260B
cis-1,2-Dichloroethene	7.7.7.7.7.7.000,000,000,000,000,000,000,	0.060	ug/L	8260B
cis-1,3-Dichloropropene	5.0	0.54	ug/Kg	8260B
cis-1,3-Dichloropropene	1.0	0.18	ug/L	8260B
Dibromochloromethane	5.0	0.94	ug/Kg	8260B
Dibromochloromethane	1.0	0.15	ug/L	8260B
Dibromomethane	5.0	0.75	ug/Kg	8260B
Dibromomethane	1.0	0.52	ug/L	8260B
Dichlorodifluoromethane	5.0	1.5	ug/Kg	8260B
Dichlorodifluoromethane	1.0	0.12	ug/L	8260B
Ethylbenzene	5.0	1.0	ug/Kg	8260B
Ethylbenzene	1.0	0.11	ug/L	8260B
Hexachlorobutadiene	5.0	1.1	ug/Kg	8260B
Hexachlorobutadiene	3.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	0.17	ug/L	8260B
Iodomethane	5.0	2.5	ug/Kg	8260B
Iodomethane	2.0	2.0	ug/L	8260B
Isopropylbenzene	7.1.7.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	0.92		8260B
Isopropylbenzene	1.0	0.92	ug/Kg ug/L	8260B
Methyl tert-butyl ether	5.0	1.8	ug/L ug/Kg	8260B
ACCRET THE RESIDENCE AND A STREET AND A CONTROL OF STREET AND A CO. O.				
Methyl tert-butyl ether Methylene Chloride	1.0 10	0.12 2.2	ug/L ug/Kg	8260B 8260B
Methylene Chloride	5.0	0.15	ug/kg ug/L	8260B
Naphthalene	10	2.4		8260B
•		0.32	ug/Kg	
Naphthalene n Butulbonzana	1.0		ug/L	8260B
n-Butylbenzene	5.0	0.58	ug/Kg	8260B
n-Butylbenzene	1.0	0.16	ug/L	8260B
N-Propylbenzene	5.0	0.95	ug/Kg "	8260B
N-Propylbenzene	1.0	0.15	ug/L	8260B
sec-Butylbenzene	5.0	0.70	ug/Kg	8260B

Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	MQL	MDL	Units	Method
sec-Butylbenzene	1.0	0.12	ug/L	8260B
Styrene	5.0	0.71	ug/Kg	8260B
Styrene	1.0	0.070	ug/L	8260B
tert-Butylbenzene	5.0	0.95	ug/Kg	8260B
tert-Butylbenzene	1.0	0.080	ug/L	8260B
Tetrachloroethene	5.0	0.71	ug/Kg	8260B
Tetrachloroethene	1.0	0.13	ug/L	8260B
Toluene	5.0	1.4	ug/Kg	8260B
Toluene	1.0	0.15	ug/L	8260B
trans-1,2-Dichloroethene	5.0	1.1	ug/Kg	8260B
trans-1,2-Dichloroethene	1.0	0.090	ug/L	8260B
trans-1,3-Dichloropropene	5.0	0.58	ug/Kg	8260B
trans-1,3-Dichloropropene	1.0	0.21	ug/L	8260B
Trichloroethene	5.0	1.4	ug/Kg	8260B
Trichloroethene	1.0	0.18	ug/L	8260B
Trichlorofluoromethane	10	0.66	ug/Kg	8260B
Trichlorofluoromethane	1.0	0.080	ug/L	8260B
Vinyl chloride	10	0.90	ug/Kg	8260B
Vinyl chloride	2.0	0.11	ug/L	8260B
Xylenes, Total	5.0	1.1	ug/Kg	8260B
Xylenes, Total	1.0	0.26	ug/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
2,4,5-Trichlorophenol	25	10	ug/Kg	8270C LL
2,4,6-Trichlorophenol	25	2.7	ug/Kg	8270C LL
2,4-Dichlorophenol	20	3.9	ug/Kg	8270C LL
2,4-Dimethylphenol	25	8.6	ug/Kg	8270C LL
2,4-Dinitrophenol	100	4.7	ug/Kg	8270C LL
2,4-Dinitrotoluene	30	3.6	ug/Kg	8270C LL
2,6-Dinitrotoluene	17	3.0	ug/Kg	8270C LL
2-Chloronaphthalene	17	1.2	ug/Kg	8270C LL
2-Chlorophenol	17	2.0	ug/Kg	8270C LL
2-Methylnaphthalene	17	2.7	ug/Kg	8270C LL
2-Nitroaniline	20	4.9	ug/Kg	8270C LL
2-Nitrophenol	20	3.9	ug/Kg	8270C LL
3 & 4 Methylphenol	33	2.8	ug/Kg	8270C LL
3,3'-Dichlorobenzidine	30	10	ug/Kg	8270C LL
3-Nitroaniline	20	7.2	ug/Kg	8270C LL
4,6-Dinitro-2-methylphenol	170	5.0	ug/Kg	8270C LL
4-Bromophenyl phenyl ether	10	2.8	ug/Kg	8270C LL
4-Chloro-3-methylphenol	20	16	ug/Kg	8270C LL
4-Chloroaniline	40	5.8	ug/Kg	8270C LL
4-Chlorophenyl phenyl ether	20	1.8	ug/Kg	8270C LL
4-Nitroaniline	20	11	ug/Kg	8270C LL
4-Nitrophenol	200	5.1	ug/Kg	8270C LL
Acenaphthene	17	1.4	ug/Kg	8270C LL
Acenaphthylene	17	1.0	ug/Kg	8270C LL
Aniline	20	3.0	ug/Kg	8270C LL
Anthracene	17	1.3	ug/Kg	8270C LL
Benzo[a]anthracene	17	1.4	ug/Kg	8270C LL
Benzo[a]pyrene	17	1.6	ug/Kg	8270C LL

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	MQL	MDL	Units	Method
Benzo[b]fluoranthene	30	1.7	ug/Kg	8270C LL
Benzo[g,h,i]perylene	20	5.1	ug/Kg	8270C LL
Benzo[k]fluoranthene	30	1.5	ug/Kg	8270C LL
Benzyl alcohol	17	5.8	ug/Kg	8270C LL
Bis(2-chloroethoxy)methane	25	1.4	ug/Kg	8270C LL
Bis(2-chloroethyl)ether	20	1.7	ug/Kg	8270C LL
Bis(2-chloroisopropyl) ether	33	8.8	ug/Kg	8270C LL
Bis(2-ethylhexyl) phthalate	25	5.4	ug/Kg	8270C LL
Butyl benzyl phthalate	20	6.2	ug/Kg	8270C LL
Chrysene	17	1.0	ug/Kg	8270C LL
Dibenz(a,h)anthracene	20	3.6	ug/Kg	8270C LL
Dibenzofuran	17	1.8	ug/Kg	8270C LL
Diethyl phthalate	17	8.4	ug/Kg	8270C LL
Dimethyl phthalate	17	4.9	ug/Kg	8270C LL
Di-n-butyl phthalate	20	2.6	ug/Kg	8270C LL
Di-n-octyl phthalate	30	1.9	ug/Kg	8270C LL
Fluoranthene	17	3.1	ug/Kg	8270C LL
Fluorene	17	2.4	ug/Kg	8270C LL
Hexachlorobenzene	17	1.5	ug/Kg	8270C LL
Hexachlorocyclopentadiene	17	4.6	ug/Kg	8270C LL
Hexachloroethane	17	2.3	ug/Kg	8270C LL
Indeno[1,2,3-cd]pyrene	25	3.5	ug/Kg	8270C LL
Isophorone	17	1.0	ug/Kg	8270C LL
Nitrobenzene	20	3.0	ug/Kg	8270C LL
N-Nitrosodi-n-propylamine	30	2.2	ug/Kg	8270C LL
Pentachlorophenol	83	4.0	ug/Kg	8270C LL
Phenanthrene	17	5.0	ug/Kg	8270C LL
Phenol	20	4.2	ug/Kg	8270C LL
Pyrene	17	1.8	ug/Kg	8270C LL

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	MQL	MDL	Units	Method
>C12-C28	10	4.1	mg/Kg	TX 1005
>C28-C35	10	4.1	mg/Kg	TX 1005
C6-C12	10	3.8	mg/Kg	TX 1005
C6-C35	10	7.5	mg/Kg	TX 1005

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method	
Aluminum	25	0.30	mg/Kg	6010B	
Arsenic	1.0	0.22	mg/Kg	6010B	
Barium	1.0	0.030	mg/Kg	6010B	
Chromium	0.50	0.051	mg/Kg	6010B	
Cobalt	0.50	0.068	mg/Kg	6010B	
Copper	0.50	0.17	mg/Kg	6010B	
Lead	0.50	0.10	mg/Kg	6010B	
Manganese	1.5	0.038	mg/Kg	6010B	
Nickel	1.0	0.12	mg/Kg	6010B	
Selenium	2.0	0.26	mg/Kg	6010B	
Thallium	1.5	0.28	mg/Kg	6010B	
Vanadium	0.50	0.079	mg/Kg	6010B	

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 6010B - Metals (ICP) (Continued)

Analyte	MQL	MDL	Units	Method
Zinc	1.5	0.11	mg/Kg	6010B

Method: 7471A - Mercury (CVAA)

Analyte	MQL	MDL	Units	Method
Mercury	50	1.7	ug/Kg	7471A

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

				Percent Su	rrogate Reco
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(61-130)	(68-140)	(50-130)	(57-140)
600-54676-1	MW-21 (6-7)	93	96	96	112
600-54676-2	MW-21 (11-12)	111	95	96	123
600-54676-2 - DL	MW-21 (11-12)	63	69	92	99
600-54676-3 - DL	MW-21 (14-15)	68	72	95	102
600-54676-4	MW-22 (8-10)	96	98	96	103
600-54676-5	MW-22 (12-14)	95	95	98	104
600-54676-6	MW-22 (18-20)	97	97	96	133
600-54676-7	Dup -1	93	96	92	98
600-54676-7 MS	Dup -1	80	94	103	105
600-54676-7 MSD	Dup -1	75	93	97	103
LCS 600-78972/3	Lab Control Sample	78	86	92	94
LCS 600-79457/1-A	Lab Control Sample	70	80	92	95
LCSD 600-79457/2-A	Lab Control Sample Dup	69	78	92	96
MB 600-78972/4	Method Blank	89	90	92	98
MB 600-79457/3-A	Method Blank	62	76	87	90
Surrogate Legend					

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

BFB DBFM TOL 12DCE	
Lab Sample ID Client Sample ID (67-139) (62-130) (70-130) (50-134)	_ab Sample ID
600-54676-8 Trip Blank 94 81 88 79	300-54676-8
LCS 600-79199/3 Lab Control Sample 101 91 89 82	_CS 600-79199/3
MB 600-79199/4 Method Blank 99 88 90 85	√IB 600-79199/4

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
		2FP	PHL	NBZ	FBP	TBP	TPH	
Lab Sample ID	Client Sample ID	(23-96)	(23-99)	(36-98)	(48-105)	(38-111)	(56-123)	
600-54676-1	MW-21 (6-7)	65	68	67	75	69	72	
600-54676-2	MW-21 (11-12)	62	66	62	68	61	65	
600-54676-3	MW-21 (14-15)	70	73	77	73	69	73	
600-54676-3 MS	MW-21 (14-15)	70	72	76	74	79	73	
600-54676-3 MSD	MW-21 (14-15)	74	80	86	80	82	76	
600-54676-4	MW-22 (8-10)	53	54	53	57	63	76	
600-54676-5	MW-22 (12-14)	61	63	59	64	64	70	

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Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)								
		2FP	PHL	NBZ	FBP	TBP	TPH			
Lab Sample ID	Client Sample ID	(23-96)	(23-99)	(36-98)	(48-105)	(38-111)	(56-123)			
600-54676-6	MW-22 (18-20)	64	71	63	71	68	74			
600-54676-7	Dup -1	67	68	65	71	70	73			
.CS 600-79176/2-A	Lab Control Sample	67	74	70	77	78	79			
MB 600-79176/1-A	Method Blank	68	69	66	75	63	76			

Surrogate Legend

2FP = 2-Fluorophenol

PHL = Phenol-d6

NBZ = Nitrobenzene-d5

FBP = 2-Fluorobiphenyl

TBP = 2,4,6-Tribromophenol

TPH = Terphenyl-d14

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Solid Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		ОТРН	
Lab Sample ID	Client Sample ID	(70-130)	
600-54676-1	MW-21 (6-7)	87	
600-54676-2	MW-21 (11-12)	98	
600-54676-3	MW-21 (14-15)	105	
600-54676-4	MW-22 (8-10)	82	
600-54676-5	MW-22 (12-14)	89	
600-54676-6	MW-22 (18-20)	85	
600-54676-7	Dup -1	85	
LCS 600-79083/2-A	Lab Control Sample	107	
MB 600-79083/1-A	Method Blank	87	

OTPH = o-Terphenyl

TestAmerica Houston 5/30/2012

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: 600-54676-7 MS

Matrix: Solid

2-Chlorotoluene

Client Sample ID: Dup -1 Prep Type: Total/NA Prep Batch: 78887

Matrix: Solid Analysis Batch: 78972	Sample	Sample	Spike	MS	MS				Prep Type: Total/NA Prep Batch: 78887 %Rec.
Analyte	•	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	1.9		55.3	78.9		ug/Kg	-	143	60 - 140
Chloromethane	2.0		55.3	52.9		ug/Kg	₩	96	60 ₋ 140
Vinyl chloride	1.1	U	55.3	48.8		ug/Kg	₩	88	60 ₋ 140
Bromomethane	1.0	U	55.3	47.8		ug/Kg	₽	86	60 - 140
Chloroethane	1.7	U	55.3	47.4		ug/Kg	₩	86	60 - 140
Trichlorofluoromethane	0.80	U	55.3	47.9		ug/Kg	⇔	87	60 ₋ 140
1,1-Dichloroethene	1.5	U	55.3	50.3		ug/Kg	₩	91	65 - 135
trans-1,2-Dichloroethene	1.4	U	55.3	53.6		ug/Kg	₩	97	60 - 140
Methyl tert-butyl ether	2.2	U	55.3	45.1		ug/Kg	⇔	81	60 ₋ 140
Acetone	17		111	81.8	F	ug/Kg	₩	58	60 - 140
lodomethane	3.0	U	55.3	50.7		ug/Kg	₩	92	60 ₋ 140
Carbon disulfide	0.66	U	55.3	49.5		ug/Kg	₩	90	60 - 140
Methylene Chloride	2.6	Ü	55.3	47.4		ug/Kg	₽	86	60 - 140
cis-1,2-Dichloroethene	1.0		55.3	49.9		ug/Kg	₩	90	60 ₋ 140
2-Butanone (MEK)	2.3	U	111	80.3		ug/Kg	₽	73	60 - 140
Carbon tetrachloride	1.4		55.3	50.0		ug/Kg	₽	90	60 - 140
Benzene	0.76	U	55.3	52.3		ug/Kg	₽	95	65 ₋ 135
1,2-Dichloroethane	1.1		55.3	48.1		ug/Kg	₩	87	60 - 140
Trichloroethene	1.7		55.3	56.3		ug/Kg	₩	102	61 - 135
1,1,1-Trichloroethane	0.89		55.3	48.8		ug/Kg	₩	88	60 - 140
1,1-Dichloroethane	1.0		55.3	52.7		ug/Kg	₩	95	60 - 140
1,2-Dichloropropane	0.86		55.3	52.7		ug/Kg	₩	95	60 - 140
2,2-Dichloropropane	2.2		55.3	35.6		ug/Kg	₽	64	60 - 140
Dibromomethane	0.90		55.3	47.3		ug/Kg	₽	86	60 - 140
Chloroform	0.80		55.3	51.5		ug/Kg	\$	93	60 - 140
Bromodichloromethane	0.80		55.3	49.2		ug/Kg	₽	89	60 - 140
1,1-Dichloropropene	0.78		55.3	53.8		ug/Kg	₽	97	60 - 140
cis-1,3-Dichloropropene	0.65		55.3	53.0		ug/Kg	₽	96	60 - 140
4-Methyl-2-pentanone (MIBK)	1.8		111	90.3		ug/Kg	₽	82	60 - 140
Toluene	1.7		55.3	51.1		ug/Kg	₽	92	64 - 135
trans-1,3-Dichloropropene	0.70		55.3	55.2		ug/Kg	₩	100	60 - 140
1,1,2-Trichloroethane	0.88		55.3	48.0		ug/Kg	₽	87	60 - 140
Tetrachloroethene	0.86		55.3	93.7	F	ug/Kg	₽	169	60 ₋ 140
1,3-Dichloropropane	0.76		55.3	47.0	******	ug/Kg	#	85	60 - 140
2-Hexanone	1.2		111	79.9		ug/Kg	₩	72	60 - 140
Dibromochloromethane	1.1		55.3	47.9		ug/Kg	₽	87	60 ₋ 140
1,2-Dibromoethane	1.2		55.3	44.6		ug/Kg	φ.	81	60 - 140
Chlorobenzene	1.2		55.3	52.9		ug/Kg ug/Kg	₽	96	65 ₋ 135
1,1,1,2-Tetrachloroethane	1.7		55.3	52.5		ug/Kg	₽	95	60 ₋ 140
Ethylbenzene	1.2		55.3	52.3		ug/Kg	φ.	95	60 - 140
-	1.4		166	155		ug/Kg ug/Kg	₽	93	60 ₋ 140
Xylenes, Total Styrene	0.86		55.3	54.2			₩	93 98	60 - 140 60 - 140
Bromoform	1.7		55.3 55.3	39.3		ug/Kg	- - φ	98 71	60 - 140
	1.7					ug/Kg	₩		
Isopropylbenzene Promohonzene			55.3 55.3	59.2		ug/Kg	☆	107	60 ₋ 140
Bromobenzene 1.2.2 Triphleropropage	1.2		55.3	51.5		ug/Kg		93	60 - 140
1,2,3-Trichloropropane	1.6		55.3	38.1		ug/Kg		69	60 - 140
1,1,2,2-Tetrachloroethane	1.0		55.3	37.6		ug/Kg	₩	68	60 - 140
N-Propylbenzene	1.1	U	55.3	52.1		ug/Kg	₩	94	60 - 140

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51.3

ug/Kg

93

60 - 140

55.3

0.82 U

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-54676-7 MS

Client: Pastor, Behling & Wheeler LLC

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Dup -1 Prep Type: Total/NA Prep Batch: 78887

inalyone Batom 10012									i i op Baton	
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
4-Chlorotoluene	1.0	U	55.3	53.5		ug/Kg	<u> </u>	97	60 - 140	
1,3,5-Trimethylbenzene	1.9	U	55.3	49.7		ug/Kg	₽	90	60 _ 140	
tert-Butylbenzene	1.1	U	55.3	53.1		ug/Kg	₽	96	60 - 140	
4-Isopropyltoluene	1.2	U	55.3	55.4		ug/Kg	₽	100	60 - 140	
1,2,4-Trimethylbenzene	1.1	U	55.3	51.0		ug/Kg	₽	92	60 _ 140	
sec-Butylbenzene	0.84	U	55.3	51.9		ug/Kg	₩	94	60 - 140	
1,3-Dichlorobenzene	0.86	U	55.3	53.1		ug/Kg	₽	96	60 - 140	
1,4-Dichlorobenzene	0.80	U	55.3	52.6		ug/Kg	₽	95	60 _ 140	
1,2-Dichlorobenzene	0.96	U	55.3	51.6		ug/Kg	₩	93	60 - 140	
n-Butylbenzene	0.70	U	55.3	52.4		ug/Kg	₽	95	60 - 140	
1,2-Dibromo-3-Chloropropane	2.9	U	55.3	30.7	F	ug/Kg	₽	55	60 - 140	
1,2,4-Trichlorobenzene	2.4	U	55.3	52.3		ug/Kg	₩	95	60 - 140	
Hexachlorobutadiene	1.4	U	55.3	56.8		ug/Kg	₽	103	60 - 140	
Naphthalene	2.9	U	55.3	39.6		ug/Kg	₩	72	60 - 140	

MS MS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	80	× **	61 - 130
Dibromofluoromethane	94		68 - 140
Toluene-d8 (Surr)	103		50 - 130
4-Bromofluorobenzene	105		57 - 140

Lab Sample ID: 600-54676-7 MSD

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Dup -1 Prep Type: Total/NA

Prep Batch: 78887

nalysis Batch. 70972									•	Daten.	
	•	Sample	Spike		MSD				%Rec.		RPD
Analyte		Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dichlorodifluoromethane	1.9	U	55.3	72.4		ug/Kg	\	131	60 - 140	9	30
Chloromethane	2.0	U	55.3	52.4		ug/Kg	₩	95	60 - 140	1	30
Vinyl chloride	1.1	U	55.3	47.9		ug/Kg	₩	87	60 - 140	2	30
Bromomethane	1.0	U	55.3	46.6		ug/Kg	₩	84	60 - 140	3	30
Chloroethane	1.7	U	55.3	45.4		ug/Kg	☼	82	60 - 140	4	30
Trichlorofluoromethane	0.80	U	55.3	47.3		ug/Kg	₩	86	60 - 140	1	30
1,1-Dichloroethene	1.5	U	55.3	50.4		ug/Kg	₩	91	65 - 135	0	30
trans-1,2-Dichloroethene	1.4	U	55.3	51.9		ug/Kg	₩	94	60 - 140	3	30
Methyl tert-butyl ether	2.2	U	55.3	42.3		ug/Kg	₩	76	60 - 140	6	30
Acetone	17		111	63.9	F	ug/Kg	*	42	60 - 140	25	30
lodomethane	3.0	U	55.3	48.5		ug/Kg	₩	88	60 - 140	4	30
Carbon disulfide	0.66	U	55.3	49.0		ug/Kg	₩	89	60 - 140	1	30
Methylene Chloride	2.6	U	55.3	44.2		ug/Kg	₽	80	60 - 140	7	30
cis-1,2-Dichloroethene	1.0	U	55.3	48.4		ug/Kg	₩	87	60 - 140	3	30
2-Butanone (MEK)	2.3	U	111	59.5	F	ug/Kg	₩	54	60 - 140	30	30
Carbon tetrachloride	1.4	U	55.3	47.4		ug/Kg	₩	86	60 - 140	5	30
Benzene	0.76	U	55.3	49.7		ug/Kg	₩	90	65 - 135	5	30
1,2-Dichloroethane	1.1	U	55.3	43.9		ug/Kg	₩	79	60 - 140	9	30
Trichloroethene	1.7	U	55.3	53.5		ug/Kg	₩	97	61 - 135	5	30
1,1,1-Trichloroethane	0.89	U	55.3	46.9		ug/Kg	₩	85	60 - 140	4	30
1,1-Dichloroethane	1.0	U	55.3	50.6		ug/Kg	₩	92	60 - 140	4	30
1,2-Dichloropropane	0.86	Ü	55.3	49.6		ug/Kg	₩	90	60 - 140	6	30
2,2-Dichloropropane	2.2	U	55.3	36.9		ug/Kg	₽	67	60 - 140	3	30

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-54676-7 MSD

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Dup -1 Prep Type: Total/NA

Prep Batch: 78887

-	Sample Sample		Spike MSD		MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dibromomethane	0.90	U	55.3	42.8		ug/Kg	*	77	60 - 140	10	30
Chloroform	0.80	U	55.3	50.1		ug/Kg	₽	91	60 - 140	3	30
Bromodichloromethane	0.80	U	55.3	46.5		ug/Kg	☼	84	60 - 140	5	30
1,1-Dichloropropene	0.78	U	55.3	52.3		ug/Kg	☼	95	60 - 140	3	30
cis-1,3-Dichloropropene	0.65	U	55.3	49.1		ug/Kg	₽	89	60 - 140	8	30
4-Methyl-2-pentanone (MIBK)	1.8	U	111	78.8		ug/Kg	☼	71	60 - 140	14	30
Toluene	1.7	U	55.3	48.0		ug/Kg	☼	87	64 - 135	6	30
trans-1,3-Dichloropropene	0.70	U	55.3	50.5		ug/Kg	₽	91	60 - 140	9	30
1,1,2-Trichloroethane	0.88	U	55.3	43.8		ug/Kg	☼	79	60 - 140	9	30
Tetrachloroethene	0.86	U	55.3	89.8	F	ug/Kg	₽	162	60 - 140	4	30
1,3-Dichloropropane	0.76	U	55.3	43.2		ug/Kg	₽	78	60 - 140	8	30
2-Hexanone	1.2	U	111	70.7		ug/Kg	₽	64	60 - 140	12	30
Dibromochloromethane	1.1	U	55.3	44.7		ug/Kg	₽	81	60 - 140	7	30
1,2-Dibromoethane	1.2	U	55.3	40.5		ug/Kg	₽	73	60 - 140	10	30
Chlorobenzene	1.2	U	55.3	50.5		ug/Kg	☼	91	65 - 135	5	30
1,1,1,2-Tetrachloroethane	1.7	U	55.3	48.8		ug/Kg	₽	88	60 - 140	7	30
Ethylbenzene	1.2	U	55.3	48.2		ug/Kg	₽	87	60 - 140	8	30
Xylenes, Total	1.4	U	166	146		ug/Kg	₽	88	60 - 140	6	30
Styrene	0.86	U	55.3	50.6		ug/Kg	₽	92	60 - 140	7	30
Bromoform	1.7	U	55.3	36.6		ug/Kg	₩	66	60 - 140	7	30
Isopropylbenzene	1.1	U	55.3	56.3		ug/Kg	☼	102	60 - 140	5	30
Bromobenzene	1.2	U	55.3	48.4		ug/Kg	₩	88	60 - 140	6	30
1,2,3-Trichloropropane	1.6	U	55.3	34.8		ug/Kg	₩	63	60 - 140	9	30
1,1,2,2-Tetrachloroethane	1.0	U	55.3	32.6	F	ug/Kg	☼	59	60 - 140	14	30
N-Propylbenzene	1.1	U	55.3	49.2		ug/Kg	₽	89	60 - 140	6	30
2-Chlorotoluene	0.82	U	55.3	48.8		ug/Kg	₽	88	60 - 140	5	30
4-Chlorotoluene	1.0	U	55.3	51.3		ug/Kg	₽	93	60 - 140	4	30
1,3,5-Trimethylbenzene	1.9	U	55.3	47.8		ug/Kg	☼	86	60 - 140	4	30
tert-Butylbenzene	1.1	U	55.3	50.3		ug/Kg	₽	91	60 - 140	5	30
4-Isopropyltoluene	1.2	U	55.3	52.9		ug/Kg	₽	96	60 - 140	5	30
1,2,4-Trimethylbenzene	1.1	U	55.3	49.5		ug/Kg	☼	89	60 - 140	3	30
sec-Butylbenzene	0.84	U	55.3	49.1		ug/Kg	₽	89	60 - 140	6	30
1,3-Dichlorobenzene	0.86	U	55.3	50.7		ug/Kg	₽	92	60 - 140	5	30
1,4-Dichlorobenzene	0.80	U	55.3	49.9		ug/Kg	₩	90	60 - 140	5	30
1,2-Dichlorobenzene	0.96	U	55.3	49.9		ug/Kg	₩	90	60 - 140	3	30
n-Butylbenzene	0.70	U	55.3	49.3		ug/Kg	₽	89	60 - 140	6	30
1,2-Dibromo-3-Chloropropane	2.9	U	55.3	29.1	F	ug/Kg	₽	53	60 - 140	5	30
1,2,4-Trichlorobenzene	2.4	U	55.3	52.4		ug/Kg	₽	95	60 - 140	0	30
Hexachlorobutadiene	1.4	U	55.3	54.9		ug/Kg	₽	99	60 - 140	3	30
Naphthalene	2.9	U	55.3	39.8		ug/Kg	₽	72	60 - 140	1	30

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	75		61 - 130
Dibromofluoromethane	93		68 - 140
Toluene-d8 (Surr)	97		50 - 130
4-Bromofluorobenzene	103		57 ₋ 140

TestAmerica Houston 5/30/2012

MQL (Adj)

SDL Unit

D

Prepared

TestAmerica Job ID: 600-54676-1

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: MB 600-78972/4

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

MB MB Result Qualifier

Matrix: Solid

Isopropylbenzene

N-Propylbenzene

2-Chlorotoluene

1,2,3-Trichloropropane

1,1,2,2-Tetrachloroethane

Bromobenzene

Analyte

Analysis Batch: 78972

Client Sample ID: Method Blank

Analyzed

Prep Type: Total/NA

Dil Fac

Allalyte	Result	Qualifier	WQL (Auj)	SDL	Ullit	U	Prepareu	Allalyzeu	DII Fac
Dichlorodifluoromethane	1.5	U	5.0	1.5	ug/Kg			05/09/12 10:44	1
Chloromethane	1.7	U	10	1.7	ug/Kg			05/09/12 10:44	1
Vinyl chloride	0.90	U	10	0.90	ug/Kg			05/09/12 10:44	1
Bromomethane	0.83	U	10	0.83	ug/Kg			05/09/12 10:44	1
Chloroethane	1.4	U	10	1.4	ug/Kg			05/09/12 10:44	1
Trichlorofluoromethane	0.66	U	10	0.66	ug/Kg			05/09/12 10:44	1
1,1-Dichloroethene	1.2	U	5.0	1.2	ug/Kg			05/09/12 10:44	1
trans-1,2-Dichloroethene	1.1	U	5.0	1.1	ug/Kg			05/09/12 10:44	1
Methyl tert-butyl ether	1.8	U	5.0	1.8	ug/Kg			05/09/12 10:44	1
Acetone	1.7	U	10	1.7	ug/Kg			05/09/12 10:44	1
Iodomethane	2.5	U	5.0	2.5	ug/Kg			05/09/12 10:44	1
Carbon disulfide	0.55	U	10	0.55	ug/Kg			05/09/12 10:44	1
Methylene Chloride	2.2	U	10	2.2	ug/Kg			05/09/12 10:44	1
cis-1,2-Dichloroethene	0.83	U	5.0	0.83	ug/Kg			05/09/12 10:44	1
2-Butanone (MEK)	1.9	U	10	1.9	ug/Kg			05/09/12 10:44	1
Carbon tetrachloride	1.1	U	5.0	1.1	ug/Kg			05/09/12 10:44	1
Benzene	0.63	U	5.0	0.63	ug/Kg			05/09/12 10:44	1
1,2-Dichloroethane	0.90	U	5.0	0.90	ug/Kg			05/09/12 10:44	1
Trichloroethene	1.4	U	5.0	1.4	ug/Kg			05/09/12 10:44	1
1,1,1-Trichloroethane	0.74	U	5.0	0.74	ug/Kg			05/09/12 10:44	1
1,1-Dichloroethane	0.87	U	5.0	0.87	ug/Kg			05/09/12 10:44	1
1,2-Dichloropropane	0.71	U	5.0	0.71	ug/Kg			05/09/12 10:44	1
2,2-Dichloropropane	1.8	U	5.0	1.8	ug/Kg			05/09/12 10:44	1
Dibromomethane	0.75	U	5.0	0.75	ug/Kg			05/09/12 10:44	1
Chloroform	0.66	U	5.0	0.66	ug/Kg			05/09/12 10:44	1
Bromodichloromethane	0.66	U	5.0	0.66	ug/Kg			05/09/12 10:44	1
1,1-Dichloropropene	0.65	U	5.0	0.65	ug/Kg			05/09/12 10:44	1
cis-1,3-Dichloropropene	0.54	U	5.0	0.54	ug/Kg			05/09/12 10:44	1
4-Methyl-2-pentanone (MIBK)	1.5	U	10	1.5	ug/Kg			05/09/12 10:44	1
Toluene	1.4	U	5.0	1.4	ug/Kg			05/09/12 10:44	1
trans-1,3-Dichloropropene	0.58	U	5.0	0.58	ug/Kg			05/09/12 10:44	1
1,1,2-Trichloroethane	0.73	U	5.0	0.73	ug/Kg			05/09/12 10:44	1
Tetrachloroethene	0.71	U	5.0	0.71	ug/Kg			05/09/12 10:44	1
1,3-Dichloropropane	0.63	U	5.0	0.63	ug/Kg			05/09/12 10:44	1
2-Hexanone	1.0	U	10	1.0	ug/Kg			05/09/12 10:44	1
Dibromochloromethane	0.94	U	5.0	0.94	ug/Kg			05/09/12 10:44	1
1,2-Dibromoethane	1.0		5.0	1.0	ug/Kg			05/09/12 10:44	1
Chlorobenzene	0.96	U	5.0	0.96	ug/Kg			05/09/12 10:44	1
1,1,1,2-Tetrachloroethane	1.4	U	5.0	1.4	ug/Kg			05/09/12 10:44	1
Ethylbenzene	1.0	U	5.0	1.0	ug/Kg			05/09/12 10:44	1
Xylenes, Total	1.1	U	5.0	1.1	ug/Kg			05/09/12 10:44	1
Styrene	0.71	U	5.0		ug/Kg			05/09/12 10:44	1
Bromoform	1.4		5.0		ug/Kg			05/09/12 10:44	1

05/09/12 10:44

05/09/12 10:44

05/09/12 10:44

05/09/12 10:44

05/09/12 10:44

05/09/12 10:44

5.0

5.0

5.0

5.0

5.0

5.0

0.92 U

0.99 U

1.3 U

0.87 U

0.95 U

0.68 U

0.92 ug/Kg

0.99 ug/Kg

1.3 ug/Kg

0.87 ug/Kg

0.95 ug/Kg

0.68 ug/Kg

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-78972/4

Client: Pastor, Behling & Wheeler LLC

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Method Blank Prep Type: Total/NA

	МВ	МВ							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.83	U	5.0	0.83	ug/Kg			05/09/12 10:44	1
1,3,5-Trimethylbenzene	1.6	U	5.0	1.6	ug/Kg			05/09/12 10:44	1
tert-Butylbenzene	0.95	U	5.0	0.95	ug/Kg			05/09/12 10:44	1
4-Isopropyltoluene	1.0	U	5.0	1.0	ug/Kg			05/09/12 10:44	1
1,2,4-Trimethylbenzene	0.92	U	5.0	0.92	ug/Kg			05/09/12 10:44	1
sec-Butylbenzene	0.70	U	5.0	0.70	ug/Kg			05/09/12 10:44	1
1,3-Dichlorobenzene	0.71	U	5.0	0.71	ug/Kg			05/09/12 10:44	1
1,4-Dichlorobenzene	0.66	U	5.0	0.66	ug/Kg			05/09/12 10:44	1
1,2-Dichlorobenzene	0.80	U	5.0	0.80	ug/Kg			05/09/12 10:44	1
n-Butylbenzene	0.58	U	5.0	0.58	ug/Kg			05/09/12 10:44	1
1,2-Dibromo-3-Chloropropane	2.4	U	5.0	2.4	ug/Kg			05/09/12 10:44	1
1,2,4-Trichlorobenzene	2.0	U	5.0	2.0	ug/Kg			05/09/12 10:44	1
Hexachlorobutadiene	1.1	U	5.0	1.1	ug/Kg			05/09/12 10:44	1
Naphthalene	2.4	U	10	2.4	ug/Kg			05/09/12 10:44	1

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	89	-	61 - 130	· -	,,	05/09/12 10:44	1	
Dibromofluoromethane	90		68 - 140			05/09/12 10:44	1	
Toluene-d8 (Surr)	92		50 - 130			05/09/12 10:44	1	
4-Bromofluorobenzene	98		57 - 140			05/09/12 10:44	1	

Lab Sample ID: LCS 600-78972/3

Matrix: Solid

Analysis Batch: 78972

Client Sample ID	: Lab Control Sample
	Prep Type: Total/NA

Analysis Batch. 70972	Spike	LCS	LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	50.0	68.1	(6	ug/Kg		136	12 - 136
Chloromethane	50.0	46.4		ug/Kg		93	21 - 153
Vinyl chloride	50.0	41.9		ug/Kg		84	28 - 159
Bromomethane	50.0	41.6		ug/Kg		83	28 - 164
Chloroethane	50.0	42.1		ug/Kg		84	30 - 136
Trichlorofluoromethane	50.0	41.9		ug/Kg		84	60 - 140
1,1-Dichloroethene	50.0	42.9		ug/Kg		86	40 - 157
trans-1,2-Dichloroethene	50.0	44.0		ug/Kg		88	65 - 130
Methyl tert-butyl ether	50.0	38.8		ug/Kg		78	49 - 152
Acetone	100	90.7		ug/Kg		91	44 - 136
Iodomethane	50.0	41.2		ug/Kg		82	60 - 140
Carbon disulfide	50.0	42.3		ug/Kg		85	53 - 176
Methylene Chloride	50.0	32.9		ug/Kg		66	48 - 144
cis-1,2-Dichloroethene	50.0	40.1		ug/Kg		80	62 _ 130
2-Butanone (MEK)	100	79.0		ug/Kg		79	42 - 186
Carbon tetrachloride	50.0	41.9		ug/Kg		84	63 - 132
Benzene	50.0	42.3		ug/Kg		85	66 - 128
1,2-Dichloroethane	50.0	40.4		ug/Kg		81	61 ₋ 135
Trichloroethene	50.0	42.2		ug/Kg		84	70 - 136
1,1,1-Trichloroethane	50.0	41.8		ug/Kg		84	70 - 127
1,1-Dichloroethane	50.0	43.9		ug/Kg		88	64 - 130
1,2-Dichloropropane	50.0	40.6		ug/Kg		81	71 - 122
2,2-Dichloropropane	50.0	39.2		ug/Kg		78	60 - 132

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TestAmerica Job ID: 600-54676-1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: LCS 600-78972/3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Lab Control Sample **Prep Type: Total/NA**

	Spike		LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Dibromomethane	50.0	40.3		ug/Kg		81	63 - 128
Chloroform	50.0	41.1		ug/Kg		82	67 ₋ 126
Bromodichloromethane	50.0	39.1		ug/Kg		78	68 - 121
1,1-Dichloropropene	50.0	45.5		ug/Kg		91	70 - 125
cis-1,3-Dichloropropene	50.0	41.8		ug/Kg		84	66 - 129
4-Methyl-2-pentanone (MIBK)	100	84.3		ug/Kg		84	52 - 146
Toluene	50.0	41.2		ug/Kg		82	69 - 125
trans-1,3-Dichloropropene	50.0	45.1		ug/Kg		90	66 - 134
1,1,2-Trichloroethane	50.0	40.4		ug/Kg		81	67 - 124
Tetrachloroethene	50.0	49.5		ug/Kg		99	69 - 125
1,3-Dichloropropane	50.0	38.9		ug/Kg		78	67 - 128
2-Hexanone	100	76.3		ug/Kg		76	52 ₋ 142
Dibromochloromethane	50.0	40.4		ug/Kg		81	63 _ 125
1,2-Dibromoethane	50.0	37.5		ug/Kg		75	60 - 140
Chlorobenzene	50.0	41.6		ug/Kg		83	67 _ 126
1,1,1,2-Tetrachloroethane	50.0	40.8		ug/Kg		82	69 - 125
Ethylbenzene	50.0	41.3		ug/Kg		83	64 - 127
Xylenes, Total	150	122		ug/Kg		81	65 _ 129
Styrene	50.0	41.5		ug/Kg		83	63 - 128
Bromoform	50.0	35.9		ug/Kg		72	50 - 130
Isopropylbenzene	50.0	46.8		ug/Kg		94	66 - 141
Bromobenzene	50.0	41.1		ug/Kg		82	71 - 124
1,2,3-Trichloropropane	50.0	35.1		ug/Kg		70	52 ₋ 155
1,1,2,2-Tetrachloroethane	50.0	35.4		ug/Kg		71	59 ₋ 134
N-Propylbenzene	50.0	41.5		ug/Kg		83	64 - 133
2-Chlorotoluene	50.0	40.7		ug/Kg		81	60 - 140
4-Chlorotoluene	50.0	42.0		ug/Kg		84	60 - 140
1,3,5-Trimethylbenzene	50.0	39.4		ug/Kg		79	65 _ 129
tert-Butylbenzene	50.0	40.7		ug/Kg		81	60 - 140
4-Isopropyltoluene	50.0	44.0		ug/Kg		88	60 - 140
1,2,4-Trimethylbenzene	50.0	40.7		ug/Kg		81	62 - 129
sec-Butylbenzene	50.0	41.0		ug/Kg		82	65 _ 131
1,3-Dichlorobenzene	50.0	42.0		ug/Kg		84	70 - 130
1,4-Dichlorobenzene	50.0	41.8		ug/Kg		84	72 ₋ 127
1,2-Dichlorobenzene	50.0	42.0		ug/Kg		84	71 ₋ 129
n-Butylbenzene	50.0	42.4		ug/Kg		85	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	30.4		ug/Kg		61	49 - 143
1,2,4-Trichlorobenzene	50.0	46.0		ug/Kg		92	63 - 138
Hexachlorobutadiene	50.0	45.9		ug/Kg		92	55 ₋ 138
Naphthalene	50.0	37.1		ug/Kg		74	55 ₋ 149

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78	N	61 - 130
Dibromofluoromethane	86		68 - 140
Toluene-d8 (Surr)	92		50 - 130
4-Bromofluorobenzene	94		57 - 140

TestAmerica Houston 5/30/2012

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: MB 600-79199/4

Project/Site: R&H Oil

N-Propylbenzene

2-Chlorotoluene

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Method Blank

Matrice Mater							Chefft S	ample ID: Wetho	
Matrix: Water								Prep Type: 1	otal/NA
Analysis Batch: 79199	MD	МВ							
Analyte		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0		ug/L		•	05/14/12 10:55	1
Chloromethane	0.18	U	2.0		ug/L			05/14/12 10:55	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/14/12 10:55	1
Bromomethane	0.25	U	2.0		ug/L			05/14/12 10:55	1
Chloroethane	0.080	U	2.0	0.080	-			05/14/12 10:55	1
Trichlorofluoromethane	0.080	U	1.0	0.080	-			05/14/12 10:55	1
1,1-Dichloroethene	0.19	U	1.0		ug/L			05/14/12 10:55	1
trans-1,2-Dichloroethene	0.090		1.0	0.090	_			05/14/12 10:55	1
Methyl tert-butyl ether	0.12		1.0		ug/L			05/14/12 10:55	1
Acetone	0.99		5.0		ug/L			05/14/12 10:55	09/24/5/29
Iodomethane	2.0		2.0		-			05/14/12 10:55	1
Carbon disulfide	0.24		2.0		ug/L			05/14/12 10:55	1
Methylene Chloride	0.15		5.0		ug/L			05/14/12 10:55	1
cis-1,2-Dichloroethene	0.060		1.0	0.060	_			05/14/12 10:55	1
2-Butanone (MEK)	0.76		2.0		ug/L			05/14/12 10:55	1
Carbon tetrachloride	0.15		1.0		ug/L			05/14/12 10:55	1
Benzene	0.080		1.0	0.080	-			05/14/12 10:55	1
1.2-Dichloroethane	0.14		1.0		ug/L			05/14/12 10:55	1
Trichloroethene	0.14		1.0		ug/L			05/14/12 10:55	1
1,1,1-Trichloroethane	0.15		1.0		ug/L			05/14/12 10:55	1
1,1-Dichloroethane	0.13		1.0		ug/L ug/L			05/14/12 10:55	1
	0.11		1.0		ug/L			05/14/12 10:55	1
1,2-Dichloropropane	0.10		1.0		-			05/14/12 10:55	1
2,2-Dichloropropane Dibromomethane	0.13		1.0		ug/L			05/14/12 10:55	1
Chloroform	0.52				ug/L				
Bromodichloromethane	0.13		1.0		ug/L			05/14/12 10:55 05/14/12 10:55	1
	0.16		1.0 1.0		ug/L				1
1,1-Dichloropropene					ug/L			05/14/12 10:55	1
cis-1,3-Dichloropropene	0.18		1.0		ug/L			05/14/12 10:55	1
4-Methyl-2-pentanone (MIBK)	0.45		2.0		ug/L			05/14/12 10:55	1
Toluene	0.15		1.0		ug/L			05/14/12 10:55	1
trans-1,3-Dichloropropene	0.21		1.0		ug/L			05/14/12 10:55	1
1,1,2-Trichloroethane	0.28		1.0		ug/L			05/14/12 10:55	1
Tetrachloroethene	0.13		1.0		ug/L			05/14/12 10:55	1
1,3-Dichloropropane	0.22		1.0		ug/L			05/14/12 10:55	1
2-Hexanone	0.35		2.0		ug/L			05/14/12 10:55	1
Dibromochloromethane	0.15		1.0		ug/L			05/14/12 10:55	1 . המשתחה
1,2-Dibromoethane	0.18		1.0		ug/L			05/14/12 10:55	1
Chlorobenzene	0.12		1.0		ug/L			05/14/12 10:55	1
1,1,1,2-Tetrachloroethane	0.18		1.0		ug/L			05/14/12 10:55	1
Ethylbenzene	0.11		1.0		ug/L			05/14/12 10:55	1
Xylenes, Total	0.26		1.0		ug/L			05/14/12 10:55	1
Styrene	0.070		1.0	0.070				05/14/12 10:55	1
Bromoform	0.19		1.0		ug/L			05/14/12 10:55	1
Isopropylbenzene	0.18		1.0		ug/L			05/14/12 10:55	1
Bromobenzene	0.19		1.0		ug/L			05/14/12 10:55	1
1,2,3-Trichloropropane	0.29		1.0		ug/L			05/14/12 10:55	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/14/12 10:55	1
N. Dranylhanzana	0.45	1.1	1.0	0 45	/1			0E/44/40 40:EE	4

05/14/12 10:55

05/14/12 10:55

1.0

1.0

0.15 ug/L

0.13 ug/L

0.15 U

0.13 U

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79199/4

Client: Pastor, Behling & Wheeler LLC

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Method Blank Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/14/12 10:55	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/14/12 10:55	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/14/12 10:55	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/14/12 10:55	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/14/12 10:55	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/14/12 10:55	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/14/12 10:55	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/14/12 10:55	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/14/12 10:55	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/14/12 10:55	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/14/12 10:55	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/14/12 10:55	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/14/12 10:55	1

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	99	-	67 - 139	· -	,,	05/14/12 10:55	1	
Dibromofluoromethane	88		62 - 130			05/14/12 10:55	1	
Toluene-d8 (Surr)	90		70 - 130			05/14/12 10:55	1	
1,2-Dichloroethane-d4 (Surr)	85		50 - 134			05/14/12 10:55	1	

Lab Sample ID: LCS 600-79199/3

Matrix: Water

Analysis Batch: 79199

Client Sample ID:	Lab Control Sample
	Prep Type: Total/NA

Analysis Batch. 79199	Spike	1.00	LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	10.0	38.0		ug/L		380	12 - 136
Chloromethane	10.0	15.9	*	ug/L		159	32 - 151
Vinyl chloride	10.0	14.0		ug/L		140	47 - 146
Bromomethane	10.0	13.7		ug/L		137	52 - 146
Chloroethane	10.0	13.0		ug/L		130	56 - 144
Trichlorofluoromethane	10.0	14.2		ug/L		142	55 ₋ 142
1,1-Dichloroethene	10.0	11.5		ug/L		115	59 - 145
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 132
Methyl tert-butyl ether	10.0	8.67		ug/L		87	63 - 142
Acetone	20.0	17.9		ug/L		89	28 - 152
lodomethane	10.0	9.38		ug/L		94	17 - 197
Carbon disulfide	10.0	10.9		ug/L		109	32 - 177
Methylene Chloride	10.0	9.45		ug/L		95	62 - 134
cis-1,2-Dichloroethene	10.0	9.05		ug/L		91	69 - 129
2-Butanone (MEK)	20.0	15.3		ug/L		77	59 - 133
Carbon tetrachloride	10.0	12.3		ug/L		123	59 - 147
Benzene	10.0	9.59		ug/L		96	69 - 131
1,2-Dichloroethane	10.0	9.81		ug/L		98	66 - 140
Trichloroethene	10.0	9.45		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	11.3		ug/L		113	65 - 142
1,1-Dichloroethane	10.0	10.0		ug/L		100	66 - 126
1,2-Dichloropropane	10.0	9.81		ug/L		98	72 - 125
2,2-Dichloropropane	10.0	13.0		ug/L		130	43 - 169

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TestAmerica Job ID: 600-54676-1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79199/3

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Lab Control Sample **Prep Type: Total/NA**

	Spike		LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Dibromomethane	10.0	10.2		ug/L		102	68 - 134
Chloroform	10.0	9.71		ug/L		97	69 - 128
Bromodichloromethane	10.0	10.6		ug/L		106	73 - 130
,1-Dichloropropene	10.0	10.0		ug/L		100	59 - 134
is-1,3-Dichloropropene	10.0	11.3		ug/L		113	60 - 135
-Methyl-2-pentanone (MIBK)	20.0	18.5		ug/L		92	56 - 142
oluene	10.0	9.63		ug/L		96	67 - 130
rans-1,3-Dichloropropene	10.0	12.3		ug/L		123	63 - 133
,1,2-Trichloroethane	10.0	9.47		ug/L		95	68 - 130
etrachloroethene	10.0	9.65		ug/L		96	61 - 142
,3-Dichloropropane	10.0	9.06		ug/L		91	62 - 132
-Hexanone	20.0	17.8		ug/L		89	51 ₋ 130
Dibromochloromethane	10.0	11.3		ug/L		113	58 ₋ 132
,2-Dibromoethane	10.0	9.83		ug/L		98	68 - 128
Chlorobenzene	10.0	9.35		ug/L		93	60 - 136
,1,1,2-Tetrachloroethane	10.0	10.9		ug/L		109	57 - 136
thylbenzene	10.0	9.50		ug/L		95	68 - 128
ýlenes, Total	30.0	28.7		ug/L		96	68 - 132
styrene	10.0	9.84		ug/L		98	68 - 133
romoform	10.0	12.0		ug/L		120	39 - 149
sopropylbenzene	10.0	11.1		ug/L		111	79 - 146
Promobenzene	10.0	9.18		ug/L		92	61 - 134
,2,3-Trichloropropane	10.0	8.67		ug/L		87	52 - 157
,1,2,2-Tetrachloroethane	10.0	9.91		ug/L		99	68 - 134
I-Propylbenzene	10.0	9.89		ug/L		99	61 - 137
-Chlorotoluene	10.0	9.27		ug/L		93	58 - 135
-Chlorotoluene	10.0	9.73		ug/L		97	64 - 134
,3,5-Trimethylbenzene	10.0	9.52		ug/L		95	63 - 132
ert-Butylbenzene	10.0	10.7		ug/L		107	67 - 148
-Isopropyltoluene	10.0	10.5		ug/L		105	63 - 138
,2,4-Trimethylbenzene	10.0	9.53		ug/L		95	63 - 131
ec-Butylbenzene	10.0	9.91		ug/L		99	61 _ 134
,3-Dichlorobenzene	10.0	9.46		ug/L		95	71 ₋ 132
,4-Dichlorobenzene	10.0	9.70		ug/L		97	72 ₋ 131
,2-Dichlorobenzene	10.0	9.22		ug/L		92	71 ₋ 133
-Butylbenzene	10.0	10.4		ug/L		104	62 - 132
,2-Dibromo-3-Chloropropane	10.0	16.5	*	ug/L		165	43 - 141
,2,4-Trichlorobenzene	10.0	9.65		ug/L		96	55 ₋ 151
lexachlorobutadiene	10.0	9.96		ug/L		100	53 ₋ 140
Naphthalene	10.0	10.1		ug/L		101	19 - 195

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	101	N	67 - 139
Dibromofluoromethane	91		62 - 130
Toluene-d8 (Surr)	89		70 - 130
1,2-Dichloroethane-d4 (Surr)	82		50 ₋ 134

TestAmerica Houston 5/30/2012

MQL (Adj)

SDL Unit

D

Prepared

TestAmerica Job ID: 600-54676-1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

MB MB Result Qualifier

Lab Sample ID: MB 600-79457/3-A

Matrix: Solid

Analyte

Bromoform

Isopropylbenzene

N-Propylbenzene

2-Chlorotoluene

1,2,3-Trichloropropane

1,1,2,2-Tetrachloroethane

Bromobenzene

Analysis Batch: 79558

Client Sample ID: Method Blank Prep Type: Total/NA

Analyzed

Prep Batch: 79457

Dil Fac

Dichlorodifluoromethane	190 U	630	190 ug/Kg	05/17/12 10:00 05/17/12 12:54	1
Chloromethane	210 U	1300	210 ug/Kg	05/17/12 10:00	1
Vinyl chloride	110 U	1300	110 ug/Kg	05/17/12 10:00	1
Bromomethane	100 U	1300	100 ug/Kg	05/17/12 10:00	1
Chloroethane	180 U	1300	180 ug/Kg	05/17/12 10:00	1
Trichlorofluoromethane	83 U	1300	83 ug/Kg	05/17/12 10:00	1
1,1-Dichloroethene	150 U	630	150 ug/Kg	05/17/12 10:00	1
trans-1,2-Dichloroethene	140 U	630	140 ug/Kg	05/17/12 10:00	1
Methyl tert-butyl ether	230 U	630	230 ug/Kg	05/17/12 10:00	1
Acetone	210 U	1300	210 ug/Kg	05/17/12 10:00	1
lodomethane	310 U	630	310 ug/Kg	05/17/12 10:00	1
Carbon disulfide	69 U	1300	69 ug/Kg	05/17/12 10:00	1
Methylene Chloride	270 U	1300	270 ug/Kg	05/17/12 10:00	1
cis-1,2-Dichloroethene	100 U	630	100 ug/Kg	05/17/12 10:00	1
2-Butanone (MEK)	240 U	1300	240 ug/Kg	05/17/12 10:00	1
Carbon tetrachloride	140 U	630	140 ug/Kg	05/17/12 10:00	1
Benzene	79 U	630	79 ug/Kg	05/17/12 10:00	1
1,2-Dichloroethane	110 U	630	110 ug/Kg	05/17/12 10:00	1
Trichloroethene	180 U	630	180 ug/Kg	05/17/12 10:00 05/17/12 12:54	1
1,1,1-Trichloroethane	93 U	630	93 ug/Kg	05/17/12 10:00	1
1,1-Dichloroethane	110 U	630	110 ug/Kg	05/17/12 10:00	1
1,2-Dichloropropane	89 U	630	89 ug/Kg	05/17/12 10:00	1
2,2-Dichloropropane	230 U	630	230 ug/Kg	05/17/12 10:00	1
Dibromomethane	94 U	630	94 ug/Kg	05/17/12 10:00	1
Chloroform	83 U	630	83 ug/Kg	05/17/12 10:00	1
Bromodichloromethane	83 U	630	83 ug/Kg	05/17/12 10:00	1
1,1-Dichloropropene	81 U	630	81 ug/Kg	05/17/12 10:00	1
cis-1,3-Dichloropropene	68 U	630	68 ug/Kg	05/17/12 10:00	1
4-Methyl-2-pentanone (MIBK)	180 U	1300	180 ug/Kg	05/17/12 10:00	1
Toluene	170 U	630	170 ug/Kg	05/17/12 10:00	1
trans-1,3-Dichloropropene	73 U	630	73 ug/Kg	05/17/12 10:00	1
1,1,2-Trichloroethane	91 U	5000	91 ug/Kg	05/17/12 10:00	1
Tetrachloroethene	89 U	630	89 ug/Kg	05/17/12 10:00	1
1,3-Dichloropropane	79 U	630	79 ug/Kg	05/17/12 10:00	1
2-Hexanone	130 U	1300	130 ug/Kg	05/17/12 10:00	1
Dibromochloromethane	120 U	630	120 ug/Kg	05/17/12 10:00	1
1,2-Dibromoethane	130 U	630	130 ug/Kg	05/17/12 10:00 05/17/12 12:54	1
Chlorobenzene	120 U	630	120 ug/Kg	05/17/12 10:00	1
1,1,1,2-Tetrachloroethane	180 U	630	180 ug/Kg	05/17/12 10:00	1
Ethylbenzene				05/45/40 40 00 05/45/40 40 54	
	130 U	630	130 ug/Kg	05/17/12 10:00	1
Xylenes, Total	130 U 140 U	630 630	130 ug/Kg 140 ug/Kg	05/17/12 10:00 05/17/12 12:54 05/17/12 10:00 05/17/12 12:54	1

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05/17/12 12:54

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630

630

630

630

630

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630

170 ug/Kg

120 ug/Kg

160 ug/Kg

110 ug/Kg

120 ug/Kg

85 ug/Kg

120 ug/Kg 05/17/12 10:00

05/17/12 10:00

05/17/12 10:00

05/17/12 10:00

05/17/12 10:00

05/17/12 10:00

05/17/12 10:00

170 U

120 U

120 U

160 U

110 U

120 U

85 U

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79457/3-A

Client: Pastor, Behling & Wheeler LLC

Matrix: Solid

Analysis Batch: 79558

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 79457

	IVID	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	100	U	630	100	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,3,5-Trimethylbenzene	200	U	630	200	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
tert-Butylbenzene	120	U	630	120	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
4-Isopropyltoluene	130	U	630	130	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,2,4-Trimethylbenzene	120	U	630	120	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
sec-Butylbenzene	88	U	630	88	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,3-Dichlorobenzene	89	U	630	89	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,4-Dichlorobenzene	83	U	630	83	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,2-Dichlorobenzene	100	U	630	100	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
n-Butylbenzene	73	U	630	73	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,2-Dibromo-3-Chloropropane	310	U	630	310	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,2,4-Trichlorobenzene	250	U	630	250	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Hexachlorobutadiene	140	U	630	140	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Naphthalene	300	U	1300	300	ug/Kg		05/17/12 10:00	05/17/12 12:54	1

мв мв

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	62		61 - 130	05/17/12 10:00	05/17/12 12:54	1
Dibromofluoromethane	76		68 - 140	05/17/12 10:00	05/17/12 12:54	1
Toluene-d8 (Surr)	87		50 - 130	05/17/12 10:00	05/17/12 12:54	1
4-Bromofluorobenzene	90		57 - 140	05/17/12 10:00	05/17/12 12:54	1

Lab Sample ID: LCS 600-79457/1-A

Matrix: Solid

Analysis Batch: 79558

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 79457

7 maryoto Batom 70000	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	6250	2780	l .	ug/Kg		44	12 - 136
Chloromethane	6250	4070		ug/Kg		65	21 - 153
Vinyl chloride	6250	3530		ug/Kg		57	28 _ 159
Bromomethane	6250	4280		ug/Kg		69	28 - 164
Chloroethane	6250	4120		ug/Kg		66	30 - 136
Trichlorofluoromethane	6250	3810		ug/Kg		61	60 - 140
1,1-Dichloroethene	6250	4670		ug/Kg		75	40 - 157
trans-1,2-Dichloroethene	6250	5040		ug/Kg		81	65 _ 130
Methyl tert-butyl ether	6250	4820		ug/Kg		77	49 - 152
Acetone	12500	9740		ug/Kg		78	44 - 136
Iodomethane	6250	4350		ug/Kg		70	60 - 140
Carbon disulfide	6250	4370		ug/Kg		70	53 - 176
Methylene Chloride	6250	5940		ug/Kg		95	48 - 144
cis-1,2-Dichloroethene	6250	5180		ug/Kg		83	62 _ 130
2-Butanone (MEK)	12500	8770		ug/Kg		70	42 - 186
Carbon tetrachloride	6250	5810		ug/Kg		93	63 - 132
Benzene	6250	5680		ug/Kg		91	66 - 128
1,2-Dichloroethane	6250	5810		ug/Kg		93	61 ₋ 135
Trichloroethene	6250	6040		ug/Kg		97	70 - 136
1,1,1-Trichloroethane	6250	5650		ug/Kg		90	70 - 127
1,1-Dichloroethane	6250	5860		ug/Kg		94	64 - 130
1,2-Dichloropropane	6250	6120		ug/Kg		98	71 - 122
2,2-Dichloropropane	6250	5670		ug/Kg		91	60 - 132

TestAmerica Houston 5/30/2012

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79457/1-A

Matrix: Solid

Analysis Batch: 79558

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 79457

Analyte Dibromomethane Chloroform	Added 6250		Qualifier Ur	it D	%Rec	Limits
	6250					
Chloroform		6100	ug	/Kg	98	63 - 128
	6250	6380	ug	/Kg	102	67 - 126
Bromodichloromethane	6250	5690	ug	/Kg	91	68 - 121
1,1-Dichloropropene	6250	6280	ug	/Kg	100	70 - 125
cis-1,3-Dichloropropene	6250	5960	ug	/Kg	95	66 - 129
4-Methyl-2-pentanone (MIBK)	12500	10100	ug	/Kg	81	52 - 146
Toluene	6250	6390	ug	/Kg	102	69 - 125
trans-1,3-Dichloropropene	6250	6060	ug	/Kg	97	66 - 134
1,1,2-Trichloroethane	6250	6530	ug	/Kg	104	67 - 124
Tetrachloroethene	6250	6290	ug	/Kg	101	69 - 125
1,3-Dichloropropane	6250	6530	ug	/Kg	104	67 - 128
2-Hexanone	12500	9340	ug	/Kg	75	52 - 142
Dibromochloromethane	6250	5750	ug	/Kg	92	63 - 125
1,2-Dibromoethane	6250	6850	ug	/Kg	110	60 - 140
Chlorobenzene	6250	6780	ug	/Kg	109	67 - 126
1,1,1,2-Tetrachloroethane	6250	6710	ug	/Kg	107	69 - 125
Ethylbenzene	6250	6280	ug	/Kg	101	64 - 127
Xylenes, Total	18800	19500	ug	/Kg	104	65 - 129
Styrene	6250	5980	ug	/Kg	96	63 - 128
Bromoform	6250	5810	ug	/Kg	93	50 - 130
Isopropylbenzene	6250	6980	ug	/Kg	112	66 - 141
Bromobenzene	6250	7050	ug	/Kg	113	71 - 124
1,2,3-Trichloropropane	6250	6460	ug	/Kg	103	52 - 155
1,1,2,2-Tetrachloroethane	6250	6430	ug	/Kg	103	59 - 134
N-Propylbenzene	6250	7240	ug	/Kg	116	64 - 133
2-Chlorotoluene	6250	6760	ug	/Kg	108	60 - 140
4-Chlorotoluene	6250	7040	ug	/Kg	113	60 - 140
1,3,5-Trimethylbenzene	6250	6400	ug	/Kg	102	65 - 129
tert-Butylbenzene	6250	8280	ug	/Kg	132	60 - 140
4-Isopropyltoluene	6250	6700	ug	/Kg	107	60 - 140
1,2,4-Trimethylbenzene	6250	6560	ug	/Kg	105	62 - 129
sec-Butylbenzene	6250	6880	ug	/Kg	110	65 - 131
1,3-Dichlorobenzene	6250	7020	ug	/Kg	112	70 - 130
1,4-Dichlorobenzene	6250	6580	ug	/Kg	105	72 - 127
1,2-Dichlorobenzene	6250	6980	ug	/Kg	112	71 - 129
n-Butylbenzene	6250	6390	ug	/Kg	102	60 - 140
1,2-Dibromo-3-Chloropropane	6250	5830	ug	/Kg	93	49 - 143
1,2,4-Trichlorobenzene	6250	6790	ug	/Kg	109	63 - 138
Hexachlorobutadiene	6250	6660	ug	/Kg	107	55 ₋ 138
Naphthalene	6250	5920	ug	/Kg	95	55 ₋ 149

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	70	-	61 - 130
Dibromofluoromethane	80		68 - 140
Toluene-d8 (Surr)	92		50 - 130
4-Bromofluorobenzene	95		57 - 140

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: LCSD 600-79457/2-A

Project/Site: R&H Oil

2-Chlorotoluene

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Lab Co	ontrol Sample Dup
Pi	rep Type: Total/NA

Matrix: Solid							-	ype: To	
Analysis Batch: 79558								Batch:	
	Spike		LCSD				%Rec.		RPD
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Dichlorodifluoromethane	6250	2720		ug/Kg		44	12 - 136	2	30
Chloromethane	6250	4130		ug/Kg		66	21 ₋ 153	1	30
Vinyl chloride	6250	3480		ug/Kg		56	28 - 159	1	30
Bromomethane	6250	4380		ug/Kg		70	28 - 164	2	30
Chloroethane	6250	3950		ug/Kg		63	30 - 136	4	30
Trichlorofluoromethane	6250	3750		ug/Kg		60	60 - 140	1	30
1,1-Dichloroethene	6250	4620		ug/Kg		74	40 - 157	1	30
trans-1,2-Dichloroethene	6250	5080		ug/Kg		81	65 - 130	1	30
Methyl tert-butyl ether	6250	4900		ug/Kg		78	49 - 152	2	30
Acetone	12500	9290		ug/Kg		74	44 - 136	5	30
lodomethane	6250	4360		ug/Kg		70	60 - 140	0	30
Carbon disulfide	6250	4250		ug/Kg		68	53 - 176	3	30
Methylene Chloride	6250	6020		ug/Kg		96	48 - 144	1	30
cis-1,2-Dichloroethene	6250	5280		ug/Kg		85	62 - 130	2	30
2-Butanone (MEK)	12500	8790		ug/Kg		70	42 - 186	0	30
Carbon tetrachloride	6250	5650		ug/Kg		90	63 - 132	3	30
Benzene	6250	5510		ug/Kg		88	66 - 128	3	30
1,2-Dichloroethane	6250	5780		ug/Kg		92	61 ₋ 135	1	30
Trichloroethene	6250	5630		ug/Kg		90	70 - 136	7	30
1,1,1-Trichloroethane	6250	5420		ug/Kg		87	70 - 127	4	30
1,1-Dichloroethane	6250	5720		ug/Kg		92	64 - 130	2	30
1,2-Dichloropropane	6250	5830		ug/Kg		93	71 - 122	5	30
2,2-Dichloropropane	6250	5430		ug/Kg		87	60 ₋ 132	4	30
Dibromomethane	6250	5980		ug/Kg		96	63 ₋ 128	2	30
Chloroform	6250	6620		ug/Kg		106	67 - 126	4	30
Bromodichloromethane	6250	5850		ug/Kg		94	68 ₋ 121	3	30
1,1-Dichloropropene	6250	6420		ug/Kg		103	70 ₋ 125	2	30
cis-1,3-Dichloropropene	6250	6010		ug/Kg		96	66 - 129	1	30
4-Methyl-2-pentanone (MIBK)	12500	10900		ug/Kg		88	52 ₋ 146	8	30
Toluene	6250	6350		ug/Kg		102	69 - 125	1	30
trans-1,3-Dichloropropene	6250	6200		ug/Kg		99	66 - 134	2	30
1,1,2-Trichloroethane	6250	6950		ug/Kg		111	67 - 124	6	30
Tetrachloroethene	6250	6530		ug/Kg		105	69 - 125	4	30
1,3-Dichloropropane	6250	6630		ug/Kg		106	67 - 128	2	30
2-Hexanone	12500	9280		ug/Kg ug/Kg		74	52 ₋ 142	1	30
Dibromochloromethane	6250	5840		ug/Kg ug/Kg		93	63 - 125	2	30
1,2-Dibromoethane	6250	6920		ug/Kg		111	60 - 140	1	30
Chlorobenzene	6250	6740				108	67 - 126	1	30
	6250	6790		ug/Kg			69 ₋ 125	1	30
1,1,1,2-Tetrachloroethane				ug/Kg		109			
Ethylbenzene Volumen Tatal	6250	6380		ug/Kg		102	64 - 127	2	30
Xylenes, Total	18800	19800		ug/Kg		106	65 ₋ 129	2	30
Styrene	6250	6060		ug/Kg		97	63 - 128	1	30
Bromoform	6250	5680		ug/Kg		91	50 - 130	2	30
Isopropylbenzene	6250	6870		ug/Kg		110	66 - 141	2	30
Bromobenzene	6250	6610		ug/Kg		106	71 - 124	7	30
1,2,3-Trichloropropane	6250	6570		ug/Kg		105	52 - 155	2	30
1,1,2,2-Tetrachloroethane	6250	6590		ug/Kg		105	59 - 134	3	30
N-Propylbenzene	6250	7120		ug/Kg		114	64 - 133	2	30

60 - 140

6650

ug/Kg

6250

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-79457/2-A

Client: Pastor, Behling & Wheeler LLC

Matrix: Solid

Analysis Batch: 79558

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 79457

, =										
	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
4-Chlorotoluene	6250	6910		ug/Kg		111	60 - 140	2	30	
1,3,5-Trimethylbenzene	6250	6330		ug/Kg		101	65 - 129	1	30	
tert-Butylbenzene	6250	8040		ug/Kg		129	60 - 140	3	30	
4-Isopropyltoluene	6250	6770		ug/Kg		108	60 - 140	1	30	
1,2,4-Trimethylbenzene	6250	6460		ug/Kg		103	62 - 129	1	30	
sec-Butylbenzene	6250	6770		ug/Kg		108	65 - 131	1	30	
1,3-Dichlorobenzene	6250	7030		ug/Kg		113	70 - 130	0	30	
1,4-Dichlorobenzene	6250	6380		ug/Kg		102	72 - 127	3	30	
1,2-Dichlorobenzene	6250	6920		ug/Kg		111	71 - 129	1	30	
n-Butylbenzene	6250	6370		ug/Kg		102	60 - 140	0	30	
1,2-Dibromo-3-Chloropropane	6250	6150		ug/Kg		98	49 - 143	5	30	
1,2,4-Trichlorobenzene	6250	6790		ug/Kg		109	63 - 138	0	30	
Hexachlorobutadiene	6250	6670		ug/Kg		107	55 - 138	0	30	
Naphthalene	6250	6140		ug/Kg		98	55 - 149	4	30	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	69		61 - 130
Dibromofluoromethane	78		68 - 140
Toluene-d8 (Surr)	92		50 - 130
4-Bromofluorobenzene	96		57 - 140

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

MB MB

4.6 U

2.7 U

10 U

Lab Sample ID: MB 600-79176/1-A

Matrix: Solid

Analysis Batch: 79269

Hexachlorocyclopentadiene

2,4,6-Trichlorophenol

2,4,5-Trichlorophenol

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 79176

Result Qualifier MQL (Adj) Dil Fac Analyte SDL Unit D Prepared Analyzed 05/14/12 15:17 Aniline 3.0 U 20 3.0 ug/Kg 05/14/12 11:18 4.2 U 20 05/14/12 11:18 Phenol 4.2 ug/Kg 05/14/12 15:17 Bis(2-chloroethyl)ether 1.6 U 20 1.6 ug/Kg 05/14/12 11:18 05/14/12 15:17 2.0 U 17 2-Chlorophenol 2.0 ug/Kg 05/14/12 11:18 05/14/12 15:17 Benzyl alcohol 5.8 U 17 5.8 ug/Kg 05/14/12 11:18 05/14/12 15:17 Bis(2-chloroisopropyl) ether 8.8 U 33 8.8 ug/Kg 05/14/12 11:18 05/14/12 15:17 2.8 U 3 & 4 Methylphenol 33 2.8 ug/Kg 05/14/12 11:18 05/14/12 15:17 30 N-Nitrosodi-n-propylamine 22 U 2.2 ug/Kg 05/14/12 11:18 05/14/12 15:17 Hexachloroethane 17 05/14/12 11:18 05/14/12 15:17 23 U 2.3 ug/Kg 2.9 U 20 05/14/12 11:18 05/14/12 15:17 Nitrobenzene 2.9 ug/Kg 10 U 17 05/14/12 11:18 05/14/12 15:17 Isophorone 1.0 ug/Kg 3.9 U 20 05/14/12 11:18 05/14/12 15:17 2-Nitrophenol 3.9 ug/Kg 05/14/12 15:17 2,4-Dimethylphenol 8.5 U 25 8.5 ug/Kg 05/14/12 11:18 Bis(2-chloroethoxy)methane 1.4 U 25 05/14/12 11:18 05/14/12 15:17 ug/Kg 2,4-Dichlorophenol 3.9 U 20 39 ug/Kg 05/14/12 11:18 05/14/12 15:17 4-Chloroaniline 5.8 U 40 5.8 ug/Kg 05/14/12 11:18 05/14/12 15:17 4-Chloro-3-methylphenol 16 U 20 05/14/12 11:18 05/14/12 15:17 ug/Kg 16 2-Methylnaphthalene 2.7 U 17 2.7 ug/Kg 05/14/12 11:18 05/14/12 15:17

> TestAmerica Houston 5/30/2012

05/14/12 15:17

05/14/12 15:17

05/14/12 15:17

05/14/12 11:18

05/14/12 11:18

05/14/12 11:18

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17

25

25

4.6 ug/Kg

2.7 ug/Kg

10 ug/Kg

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: MB 600-79176/1-A

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Client Sample ID: Method Blank

Matrix: Solid					1	Prep Type: To	tal/NA
Analysis Batch: 79269						Prep Batch:	79176
MB	MB						
Analyte Result	Qualifier	MQL (Adi)	SDL Unit	D	Prepared	Analyzed	Dil Fac

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	1.2	U	17	1.2	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2-Nitroaniline	4.9	U	20	4.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Dimethyl phthalate	4.9	U	17	4.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Acenaphthylene	1.0	U	17	1.0	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2,6-Dinitrotoluene	2.9	U	17	2.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
3-Nitroaniline	7.1	U	20	7.1	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Acenaphthene	1.4	U	17	1.4	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2,4-Dinitrophenol	4.7	U	100	4.7	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
4-Nitrophenol	5.1	U	200	5.1	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Dibenzofuran	1.8	U	17	1.8	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2,4-Dinitrotoluene	3.6	U	30	3.6	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Diethyl phthalate	111		17	8.4	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
4-Chlorophenyl phenyl ether	1.8	U	20	1.8	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Fluorene	2.4	U	17	2.4	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
4-Nitroaniline	11	U	20	11	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
4,6-Dinitro-2-methylphenol	5.0	U	170	5.0	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
4-Bromophenyl phenyl ether	2.8	U	10	2.8	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Hexachlorobenzene	1.5	U	17	1.5	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Pentachlorophenol	4.0	U	83	4.0	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Phenanthrene	4.9	U	17	4.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Anthracene	1.3	U	17	1.3	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Di-n-butyl phthalate	17.0	J	20	2.6	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Fluoranthene	3.1	U	17	3.1	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Pyrene	1.8	U	17	1.8	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Butyl benzyl phthalate	33.8		20	6.2	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
3,3'-Dichlorobenzidine	10	U	30	10	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Benzo[a]anthracene	1.4	U	17	1.4	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Bis(2-ethylhexyl) phthalate	5.4	U	25	5.4	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Chrysene	1.0	U	17	1.0	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Di-n-octyl phthalate	1.9	U	30	1.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Benzo[b]fluoranthene	1.7	U	30	1.7	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Benzo[k]fluoranthene	1.5	U	30	1.5	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Benzo[a]pyrene	1.6	U	17	1.6	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Indeno[1,2,3-cd]pyrene	3.5	U	25	3.5	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Dibenz(a,h)anthracene	3.6	U	20	3.6	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Benzo[g,h,i]perylene	5.1	U	20	5.1	ug/Kg		05/14/12 11:18	05/14/12 15:17	1

VID	IVID	

Surrogate	%Recovery G	Qualifier Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	68	23 - 96	05/14/12 11:18	05/14/12 15:17	1
Phenol-d6	69	23 - 99	05/14/12 11:18	05/14/12 15:17	1
Nitrobenzene-d5	66	36 - 98	05/14/12 11:18	05/14/12 15:17	1
2-Fluorobiphenyl	75	48 - 105	05/14/12 11:18	05/14/12 15:17	1
2,4,6-Tribromophenol	63	38 - 111	05/14/12 11:18	05/14/12 15:17	1
Terphenyl-d14	76	56 - 123	05/14/12 11:18	05/14/12 15:17	1

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: LCS 600-79176/2-A

Project/Site: R&H Oil

Matrix: Solid

Bis(2-ethylhexyl) phthalate

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Analysis Batch: 79269							Prep Batch: 7917
	Spike		LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Aniline	332	211		ug/Kg		64	15 - 91
Phenol	332	258		ug/Kg		78	33 - 122
Bis(2-chloroethyl)ether	332	247		ug/Kg		74	44 - 119
2-Chlorophenol	332	261		ug/Kg		79	54 ₋ 119
Benzyl alcohol	332	282		ug/Kg		85	25 - 141
Bis(2-chloroisopropyl) ether	332	212		ug/Kg		64	51 ₋ 115
3 & 4 Methylphenol	332	280		ug/Kg		84	44 - 126
N-Nitrosodi-n-propylamine	332	266		ug/Kg		80	43 - 140
Hexachloroethane	332	250		ug/Kg		75	36 - 116
Nitrobenzene	332	243		ug/Kg		73	53 - 123
Isophorone	332	243		ug/Kg		73	49 - 115
2-Nitrophenol	332	263		ug/Kg		79	50 - 112
2,4-Dimethylphenol	332	271		ug/Kg		82	36 - 124
Bis(2-chloroethoxy)methane	332	264		ug/Kg		80	54 ₋ 114
2,4-Dichlorophenol	332	280		ug/Kg		85	54 - 119
4-Chloroaniline	332	263		ug/Kg		79	42 - 122
4-Chloro-3-methylphenol	332	289		ug/Kg		87	54 ₋ 119
2-Methylnaphthalene	332	270		ug/Kg		82	54 ₋ 130
Hexachlorocyclopentadiene	332	187		ug/Kg		56	33 - 119
2,4,6-Trichlorophenol	332	276		ug/Kg		83	59 - 134
2,4,5-Trichlorophenol	332	291		ug/Kg		88	59 ₋ 136
2-Chloronaphthalene	332	258		ug/Kg		78	50 - 123
2-Nitroaniline	332	248		ug/Kg		75	49 - 149
Dimethyl phthalate	332	288		ug/Kg		87	58 - 126
Acenaphthylene	332	265		ug/Kg		80	51 - 122
2,6-Dinitrotoluene	332	277		ug/Kg		84	53 - 116
3-Nitroaniline	332	252		ug/Kg		76	45 - 133
Acenaphthene	332	251		ug/Kg		76	58 - 125
2,4-Dinitrophenol	332	318		ug/Kg		96	25 - 117
4-Nitrophenol	332	269		ug/Kg		81	20 - 132
Dibenzofuran	332	272		ug/Kg		82	54 ₋ 119
2,4-Dinitrotoluene	332	286		ug/Kg ug/Kg		86	53 - 123
Diethyl phthalate	332	382		ug/Kg ug/Kg		115	55 ₋ 126
4-Chlorophenyl phenyl ether	332	282		ug/Kg ug/Kg		85	57 ₋ 126
	332	281				85	57 - 120 52 - 147
Fluorene 4-Nitroaniline	332	266		ug/Kg		80	48 ₋ 138
				ug/Kg			
4,6-Dinitro-2-methylphenol	332	198		ug/Kg		60	34 - 124
4-Bromophenyl phenyl ether	332	296		ug/Kg		89	56 ₋ 126
Hexachlorobenzene	332	289		ug/Kg		87	59 ₋ 122
Pentachlorophenol	332	249		ug/Kg		75	17 _ 124
Phenanthrene	332	288		ug/Kg		87	55 - 120
Anthracene	332	272		ug/Kg		82	52 - 120
Di-n-butyl phthalate	332	302		ug/Kg		91	61 - 124
Fluoranthene	332	294		ug/Kg		89	56 - 123
Pyrene	332	265		ug/Kg		80	48 - 131
Butyl benzyl phthalate	332	313		ug/Kg		94	43 - 135
3,3'-Dichlorobenzidine	332	283		ug/Kg		85	18 - 172
Benzo[a]anthracene	332	269		ug/Kg		81	49 - 124
Ris(2-ethylhevyl) nhthalate	333	267		ua/Ka		80	55 136

55 - 136

267

ug/Kg

332

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-79176/2-A

Lab Sample ID: 600-54676-3 MS

Matrix: Solid

2,6-Dinitrotoluene

3-Nitroaniline

Client: Pastor, Behling & Wheeler LLC

Matrix: Solid

Analysis Batch: 79269

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 79176

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chrysene	332	266	-	ug/Kg		80	50 - 123	
Di-n-octyl phthalate	332	298		ug/Kg		90	45 - 135	
Benzo[b]fluoranthene	332	293		ug/Kg		88	58 - 130	
Benzo[k]fluoranthene	332	302		ug/Kg		91	56 - 129	
Benzo[a]pyrene	332	298		ug/Kg		90	58 ₋ 123	
Indeno[1,2,3-cd]pyrene	332	231		ug/Kg		70	40 - 147	
Dibenz(a,h)anthracene	332	313		ug/Kg		94	55 - 141	
Benzo[g,h,i]perylene	332	322		ug/Kg		97	50 - 140	

LCS LCS

3.3 U

8.0 U

Surrogate	%Recovery	Qualifier	Limits
2-Fluorophenol	67	¥	23 - 96
Phenol-d6	74		23 - 99
Nitrobenzene-d5	70		36 - 98
2-Fluorobiphenyl	77		48 - 105
2,4,6-Tribromophenol	78		38 - 111
Terphenyl-d14	79		56 - 123

Client Sample ID: MW-21 (14-15)

Prep Batch: 79176

Prep Type: Total/NA

Analysis Batch: 7		Sample	Spike	MS	MS				Prep Batch: 7917 %Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Aniline	3.4	U	374	236	-	ug/Kg	<u> </u>	63	12 - 88
Phenol	4.8	U	374	286		ug/Kg	₩	77	31 - 121
Bis(2-chloroethyl)ether	1.9	U	374	274		ug/Kg	₩	73	28 - 120
2-Chlorophenol	2.2	U	374	295		ug/Kg	₩	79	21 - 130
Benzyl alcohol	6.6	U	374	337		ug/Kg	₩	90	27 - 128
Bis(2-chloroisopropyl)	ether 9.9	U	374	248		ug/Kg	₩	66	50 - 130
3 & 4 Methylphenol	3.1	U	374	319		ug/Kg	₩	85	30 - 130
N-Nitrosodi-n-propylan	nine 2.5	U	374	365		ug/Kg	₩	97	34 - 115
Hexachloroethane	2.6	U	374	272		ug/Kg	₩	73	31 - 113
Nitrobenzene	3.3	U	374	276		ug/Kg	₩	74	29 - 118
Isophorone	1.1	U	374	279		ug/Kg	₩	75	33 - 125
2-Nitrophenol	4.4	U	374	307		ug/Kg	₩	82	30 - 130
2,4-Dimethylphenol	9.7	U	374	320		ug/Kg	₩	86	29 - 122
Bis(2-chloroethoxy)me	thane 1.6	U	374	295		ug/Kg	₩	79	33 - 119
2,4-Dichlorophenol	4.4	U	374	315		ug/Kg	₽	84	35 _ 121
4-Chloroaniline	6.5	U	374	312		ug/Kg	₩	83	15 - 112
4-Chloro-3-methylpher	nol 18	U	374	395		ug/Kg	₩	106	26 - 132
2-Methylnaphthalene	820		374	896	F	ug/Kg	₽	19	32 - 136
Hexachlorocyclopentac	diene 5.2	U	374	201		ug/Kg	₩	54	10 - 118
2,4,6-Trichlorophenol	3.0	U	374	323		ug/Kg	₩	86	30 - 130
2,4,5-Trichlorophenol	11	U	374	328		ug/Kg	₩	88	30 - 130
2-Chloronaphthalene	1.4	U	374	295		ug/Kg	₩	79	34 - 126
2-Nitroaniline	5.5	U	374	308		ug/Kg	₽	82	38 - 130
Dimethyl phthalate	5.5	U	374	298		ug/Kg	≎	80	40 - 130
Acenaphthylene	1.1	U	374	323		ug/Kg	₩	86	32 _ 137

345

290

ug/Kg

ug/Kg

92

77

₩

30 - 124

22 - 124

374

374

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54676-3 MS

Matrix: Solid

Analysis Batch: 79269

Client Sample ID: MW-21 (14-15) **Prep Type: Total/NA**

Prep Batch: 79176

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	1.6	U	374	318		ug/Kg	*	85	25 - 134	
2,4-Dinitrophenol	5.3	U	374	351		ug/Kg	₩	94	10 - 121	
4-Nitrophenol	5.7	U	374	704	F	ug/Kg	₩	188	25 - 122	
Dibenzofuran	85		374	345		ug/Kg	₩	69	35 - 125	
2,4-Dinitrotoluene	4.1	U	374	320		ug/Kg	₩	86	10 - 129	
Diethyl phthalate	9.5	U	374	317		ug/Kg	₩	85	41 - 129	
4-Chlorophenyl phenyl ether	2.0	U	374	329		ug/Kg	₩	88	32 - 132	
Fluorene	200		374	428		ug/Kg	₩	62	36 - 122	
4-Nitroaniline	13	U	374	269		ug/Kg	₩	72	21 - 122	
4,6-Dinitro-2-methylphenol	5.6	U	374	251		ug/Kg	₩	67	10 - 104	
4-Bromophenyl phenyl ether	3.2	U	374	341		ug/Kg	₩	91	41 - 123	
Hexachlorobenzene	1.7	U	374	302		ug/Kg	₩	81	40 - 123	
Pentachlorophenol	4.5	U	374	289		ug/Kg	₽	77	25 - 124	
Phenanthrene	200		374	425		ug/Kg	₩	59	26 - 126	
Anthracene	1.4	U	374	318		ug/Kg	₩	85	35 - 115	
Di-n-butyl phthalate	2.9	U	374	325		ug/Kg	₩	87	41 - 126	
Fluoranthene	11	J	374	331		ug/Kg	₩	86	37 - 132	
Pyrene	16	J	374	299		ug/Kg	₩	76	28 - 138	
Butyl benzyl phthalate	7.0	U	374	319		ug/Kg	₩	85	41 - 139	
3,3'-Dichlorobenzidine	11	U	374	345		ug/Kg	₩	92	14 - 132	
Benzo[a]anthracene	1.6	U	374	310		ug/Kg	₩	83	38 - 128	
Bis(2-ethylhexyl) phthalate	6.0	U	374	292		ug/Kg	₩	78	44 - 139	
Chrysene	1.1	U	374	302		ug/Kg	₽	81	36 - 130	
Di-n-octyl phthalate	2.1	U	374	334		ug/Kg	₩	89	36 _ 152	
Benzo[b]fluoranthene	1.9	U	374	356		ug/Kg	₩	95	40 - 131	
Benzo[k]fluoranthene	1.7	U	374	308		ug/Kg	₽	82	33 - 137	
Benzo[a]pyrene	1.8	U	374	327		ug/Kg	₽	87	30 - 130	
Indeno[1,2,3-cd]pyrene	3.9	U	374	385		ug/Kg	₽	103	30 - 112	
Dibenz(a,h)anthracene	4.1	U	374	348		ug/Kg	₽	93	19 - 125	
Benzo[g,h,i]perylene	5.7	U	374	378		ug/Kg	₽	101	34 _ 110	
	MS	MS								

Surrogate	%Recovery	Qualifier	Limits
2-Fluorophenol	70	V	23 - 96
Phenol-d6	72		23 - 99
Nitrobenzene-d5	76		36 - 98
2-Fluorobiphenyl	74		48 - 105
2,4,6-Tribromophenol	79		38 - 111
Terphenyl-d14	73		56 ₋ 123

Lab Sample ID: 600-54676-3 MSD

Matrix: Solid

Analysis Batch: 79269

Client Sample ID: MW-21 (14-15) **Prep Type: Total/NA**

Prep Batch: 79176

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aniline	3.4	U	375	278	V	ug/Kg	*	74	12 - 88	16	30
Phenol	4.8	U	375	352		ug/Kg	₩	94	31 _ 121	21	30
Bis(2-chloroethyl)ether	1.9	U	375	321		ug/Kg	₩	86	28 - 120	16	30
2-Chlorophenol	2.2	U	375	336		ug/Kg	*	90	21 - 130	13	30
Benzyl alcohol	6.6	U	375	369		ug/Kg	₽	98	27 - 128	9	30

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

ı	Lab Sample ID: 600-54676-3 MSD								Client S	ample ID:	MVV-21 (14-15)	
	Matrix: Solid									Prep 1	Type: To	tal/NA	
	Analysis Batch: 79269									Prep	Batch:	79176	
		Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	

Analysis Batch: 79269	Sample	Sample	Spike	MSD	MSD				Prep %Rec.	Batch:	79176 RPE
Analyte	-	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Bis(2-chloroisopropyl) ether	9.9		375	277	Qualifici	ug/Kg	— <u>-</u>	74	50 ₋ 130	11	30
3 & 4 Methylphenol	3.1		375	360		ug/Kg	#	96	30 - 130	12	3(
N-Nitrosodi-n-propylamine	2.5		375	456	F	ug/Kg	₽	122	34 - 115	22	3(
Hexachloroethane	2.6		375	327	•	ug/Kg ug/Kg	₩	87	31 - 113	18	3(
Nitrobenzene	3.3		375	300		ug/Kg ug/Kg	₩	80	29 - 118	8	3(
Isophorone	1.1		375	312		ug/Kg ug/Kg	₽	83	33 - 125	11	3(
2-Nitrophenol	4.4		375	363		ug/Kg ug/Kg	₩	97	30 - 120	17	3(
2,4-Dimethylphenol	9.7		375	349		ug/Kg ug/Kg	₽	93	29 - 122	9	3(
Bis(2-chloroethoxy)methane	1.6		375	336		ug/Kg ug/Kg		90	33 - 119	13	3(
2,4-Dichlorophenol	4.4		375	355		ug/Kg ug/Kg		95	35 - 119	12	3
4-Chloroaniline	6.5		375	333		ug/Kg ug/Kg	₩	89	15 - 112	6	3(
		U	375 375	430		ug/Kg ug/Kg		115	26 - 132	9	3
4-Chloro-3-methylphenol	820	U	375 375	1070	Е	ug/Kg ug/Kg		66	32 ₋ 136	18	3
2-Methylnaphthalene					E. Kasakseraer		~ \$				
Hexachlorocyclopentadiene	5.2		375	209		ug/Kg	₩	56	10 - 118	4	30
2,4,6-Trichlorophenol	3.0		375	337		ug/Kg	₩	90	30 - 130	4	30
2,4,5-Trichlorophenol		U	375	345		ug/Kg	~ \$	92	30 - 130	5	30
2-Chloronaphthalene	1.4		375	335		ug/Kg		89	34 - 126	13	30
2-Nitroaniline	5.5		375	334		ug/Kg	*	89	38 - 130	8	30
Dimethyl phthalate	5.5		375	317		ug/Kg	*	84	40 - 130	6	30
Acenaphthylene	1.1		375	343	_	ug/Kg	‡	92	32 - 137	6	30
2,6-Dinitrotoluene	3.3		375	472	F	ug/Kg	*	126	30 - 124	31	30
3-Nitroaniline	8.0		375	325		ug/Kg		87	22 - 124	11	30
Acenaphthene	1.6		375	340		ug/Kg	*	91	25 - 134	7	30
2,4-Dinitrophenol	5.3		375	367	_	ug/Kg	*	98	10 - 121	4	30
4-Nitrophenol	5.7	U	375	402	F	ug/Kg	*	107	25 - 122	55	30
Dibenzofuran	85		375	398		ug/Kg	*	83	35 - 125	14	30
2,4-Dinitrotoluene	4.1		375	398		ug/Kg	*	106	10 - 129	22	30
Diethyl phthalate	9.5		375	336		ug/Kg	*	90	41 - 129	6	30
4-Chlorophenyl phenyl ether	2.0	U	375	341		ug/Kg	*	91	32 - 132	4	30
Fluorene	200		375	520		ug/Kg	*	86	36 - 122	19	30
4-Nitroaniline		U	375	324		ug/Kg	*	86	21 - 122	18	30
4,6-Dinitro-2-methylphenol	5.6		375	262		ug/Kg	*	70	10 - 104	4	30
4-Bromophenyl phenyl ether	3.2		375	374		ug/Kg	*	100	41 - 123	9	30
Hexachlorobenzene	1.7		375	338		ug/Kg	*	90	40 - 123	11	30
Pentachlorophenol	4.5	U	375	297		ug/Kg	₽	79	25 - 124	3	30
Phenanthrene	200		375	527		ug/Kg	#	86	26 - 126	21	30
Anthracene	1.4		375	354		ug/Kg	*	95	35 - 115	11	30
Di-n-butyl phthalate	2.9		375	348		ug/Kg	₩	93	41 - 126	7	30
Fluoranthene	11		375	378		ug/Kg	₽	98	37 ₋ 132	13	30
Pyrene	16		375	318		ug/Kg	\$	81	28 - 138	6	30
Butyl benzyl phthalate	7.0		375	335		ug/Kg	₽	89	41 - 139	5	30
3,3'-Dichlorobenzidine	11		375	374		ug/Kg	₽	100	14 - 132	8	30
Benzo[a]anthracene	1.6		375	329		ug/Kg	₽	88	38 - 128	6	30
Bis(2-ethylhexyl) phthalate	6.0		375	314		ug/Kg	₩	84	44 - 139	7	30
Chrysene	1.1	U	375	325		ug/Kg	₩	87	36 - 130	7	30
Di-n-octyl phthalate	2.1	U	375	350		ug/Kg	₽	93	36 - 152	5	3
Benzo[b]fluoranthene	1.9	U	375	344		ug/Kg	₩	92	40 - 131	4	30
Benzo[k]fluoranthene	1.7	U	375	299		ug/Kg	₩	80	33 - 137	3	30
Benzo[a]pyrene	1.8	U	375	348		ug/Kg	₽	93	30 - 130	6	30
Indeno[1,2,3-cd]pyrene	3.9	U	375	334		ug/Kg	₽	89	30 - 112	14	30

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54676-3 MSD Client Sample ID: MW-21 (14-15) **Matrix: Solid** Prep Type: Total/NA Prep Batch: 79176

Analysis Batch: 79269

_	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dibenz(a,h)anthracene	4.1	U	375	381	7	ug/Kg	*	102	19 - 125	9	30
Benzo[g,h,i]perylene	5.7	U	375	394		ug/Kg	₩	105	34 - 110	4	30

MSD MSD %Recovery Qualifier Limits Surrogate 2-Fluorophenol 23 - 96 74 Phenol-d6 80 23 - 99 Nitrobenzene-d5 86 36 - 98 2-Fluorobiphenyl 80 48 - 105 2,4,6-Tribromophenol 82 38 - 111 Terphenyl-d14 76 56 - 123

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 600-79083/1-A Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Solid Prep Batch: 79083 Analysis Batch: 79161

мв мв Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Analyzed Dil Fac C6-C12 3.8 U 10 3.8 mg/Kg 05/11/12 11:58 05/11/12 20:51 >C12-C28 4.1 U 10 mg/Kg 05/11/12 11:58 05/11/12 20:51 >C28-C35 4.1 U 10 4.1 mg/Kg 05/11/12 11:58 05/11/12 20:51 C6-C35 7.5 U 10 7.5 mg/Kg 05/11/12 11:58 05/11/12 20:51

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac o-Terphenyl 87 70 - 130 05/11/12 11:58 05/11/12 20:51

Lab Sample ID: LCS 600-79083/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 79161 Prep Batch: 79083

	Бріке	LUS	LUS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
C6-C12	250	281		mg/Kg		113	75 - 125	· · · · · · · · · · · · · · · · · · ·
>C12-C28	250	263		mg/Kg		105	75 - 125	
C6-C35	500	544		mg/Kg		109	75 - 125	

LCS LCS Surrogate %Recovery Qualifier Limits

70 - 130

107

Method: 6010B - Metals (ICP)

o-Terphenyl

Lab Sample ID: MB 600-78888/1-A Client Sample ID: Method Blank **Matrix: Solid**

Prep Type: Total/NA Analysis Batch: 78964 Prep Batch: 78888

	IND	IAID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.22	U	1.0	0.22	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Aluminum	0.994	J	25	0.30	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Barium	0.142	J	1.0	0.030	mg/Kg		05/09/12 11:50	05/10/12 09:23	1

Project/Site: R&H Oil

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 600-78888/1-A

Client: Pastor, Behling & Wheeler LLC

Matrix: Solid

Analysis Batch: 78964

Client Sample ID: Method Blank **Prep Type: Total/NA**

Prep Batch: 78888

	IVID	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.068	U	0.50	0.068	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Chromium	0.051	U	0.50	0.051	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Copper	0.17	U	0.50	0.17	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Manganese	0.038	U	1.5	0.038	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Nickel	0.12	U	1.0	0.12	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Lead	0.10	U	0.50	0.10	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Selenium	0.26	U	2.0	0.26	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Thallium	0.28	U	1.5	0.28	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Vanadium	0.079	U	0.50	0.079	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Zinc	0.653	J	1.5	0.11	mg/Kg		05/09/12 11:50	05/10/12 09:23	1

Lab Sample ID: LCS 600-78888/2-A

Matrix: Solid

Analysis Batch: 78964

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 78888

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	138	134	7-	mg/Kg		97	78 - 122	
Aluminum	10700	8000		mg/Kg		75	42 _ 158	
Barium	269	261		mg/Kg		97	80 - 120	
Cobalt	142	138		mg/Kg		97	82 - 118	
Chromium	105	101		mg/Kg		96	81 - 119	
Copper	110	109		mg/Kg		99	84 - 116	
Manganese	539	501		mg/Kg		93	81 - 119	
Nickel	130	125		mg/Kg		96	81 - 119	
Lead	144	137		mg/Kg		95	79 _ 121	
Selenium	200	193		mg/Kg		97	80 - 120	
Thallium	161	161		mg/Kg		100	79 - 120	
Vanadium	67.0	61.2		mg/Kg		91	79 ₋ 121	
Zinc	223	215		mg/Kg		96	79 - 121	

Lab Sample ID: 600-54676-3 MS

Matrix: Solid

Client Sample ID: MW-21 (14-15) Prep Type: Total/NA

									-
Analysis Batch: 78964									Prep Batch: 78888
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Arsenic	6.3	 	56.2	59.9	8	mg/Kg	*	95	75 - 125
Aluminum	5300	В	562	10000	4	mg/Kg	₽	838	75 - 125
Barium	29	В	56.2	83.5		mg/Kg	₩	97	75 ₋ 125
Cobalt	2.3		56.2	50.3		mg/Kg	₩	85	75 ₋ 125
Chromium	6.3		56.2	56.6		mg/Kg	₩	89	75 ₋ 125
Copper	4.9		56.2	59.7		mg/Kg	₩	97	75 _ 125
Manganese	130		56.2	206	F	mg/Kg	₩	131	75 - 125
Nickel	5.7		56.2	52.7		mg/Kg	₩	84	75 ₋ 125
Lead	6.0		56.2	54.9		mg/Kg	₩	87	75 ₋ 125
Selenium	0.28	U	56.2	49.0		mg/Kg	₩	87	75 ₋ 125
Thallium	0.30	U	56.2	49.8		mg/Kg	₩	88	75 ₋ 125
Vanadium	16		56.2	70.5		mg/Kg	₩	97	75 - 125
Zinc	13	B	56.2	71.6		mg/Kg	₩	104	75 ₋ 125

Project/Site: R&H Oil

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-54676-3 MSD

Client: Pastor, Behling & Wheeler LLC

Matrix: Solid

Analysis Batch: 78964

Client Sample ID: MW-21 (14-15)

Prep Type: Total/NA

Prep Batch: 78888

7 mm, j 0:0 = a 10:0: 1 0 0 0 1											
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	6.3	(F	54.6	57.2	(mg/Kg	*	93	75 - 125	5	20
Aluminum	5300	В	546	9010	4	mg/Kg	₽	680	75 - 125	11	20
Barium	29	В	54.6	80.0		mg/Kg	₽	93	75 - 125	4	20
Cobalt	2.3		54.6	48.1		mg/Kg	₽	84	75 - 125	4	20
Chromium	6.3		54.6	54.1		mg/Kg	₽	88	75 - 125	4	20
Copper	4.9		54.6	57.0		mg/Kg	₽	95	75 - 125	5	20
Manganese	130		54.6	202	F	mg/Kg	₽	126	75 - 125	2	20
Nickel	5.7		54.6	49.8		mg/Kg	₽	81	75 ₋ 125	6	20
Lead	6.0		54.6	52.8		mg/Kg	₽	86	75 - 125	4	20
Selenium	0.28	U	54.6	47.9		mg/Kg	₽	88	75 - 125	2	20
Thallium	0.30	U	54.6	48.3		mg/Kg	₽	89	75 - 125	3	20
Vanadium	16		54.6	65.2		mg/Kg	₽	90	75 - 125	8	20
Zinc	13	В	54.6	68.4		mg/Kg	₩	101	75 - 125	5	20

Lab Sample ID: 600-54676-3 DU Client Sample ID: MW-21 (14-15)

Matrix: Solid

Analysis Batch: 78964

Prep Type: Total/NA Prep Batch: 78888

Analysis Batch: 76964							Prep Batch:	10000
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Arsenic	6.3		6.04	·	mg/Kg	*	4	20
Aluminum	5300	В	5170		mg/Kg	\$	2	20
Barium	29	В	27.5		mg/Kg	\$	6	20
Cobalt	2.3		2.14		mg/Kg	\$	9	20
Chromium	6.3		6.56		mg/Kg	\$	4	20
Copper	4.9		4.79		mg/Kg	₩	3	20
Manganese	130		140		mg/Kg	₽	5	20
Nickel	5.7		5.42		mg/Kg	\$	5	20
Lead	6.0		6.29		mg/Kg	₩	5	20
Selenium	0.28	U	0.29	U	mg/Kg	₽	NC	20
Thallium	0.30	U	0.31	U	mg/Kg	₩	NC	20
Vanadium	16		15.9		mg/Kg	₩	0.9	20
Zinc	13	В	13.2		mg/Kg	₩	0.6	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 600-78949/7-A

Matrix: Solid

Analysis Batch: 79029

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 78949

	INID	IVID								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.7	Ū	50	1.7	ug/Kg		05/10/12 09:31	05/10/12 15:04	1	

Lab Sample ID: LCS 600-78949/8-A ^100

Matrix: Solid

Analysis Batch: 79029

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 78949

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Mercury	 25300	24700	2	ug/Kg		98	70 - 130	D

QC Sample Results

Spike

Added

316

MS MS

DU DU

5.34 J

DU DU

Result Qualifier

287

Result Qualifier

Unit

ug/Kg

Unit

ug/Kg

D

₩

D $\overline{\varphi}$ 89

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 7471A - Mercury (CVAA) (Continued)

Sample Sample

6.6 J

Sample Sample

6.6 J

Sample Sample

Result Qualifier

Result Qualifier

Matrix: Solid

Analyte

Mercury

Analyte

Mercury

Analysis Batch: 79029

Client Sample ID: MW-21 (6-7) Prep Type: Total/NA

Prep Batch: 78949

Limits %Rec

75 - 125

Lab Sample ID: 600-54676-1 DU

Lab Sample ID: 600-54676-1 MS

Matrix: Solid

Analysis Batch: 79029

Client Sample ID: MW-21 (6-7)

Prep Type: Total/NA

Prep Batch: 78949 RPD

RPD Limit

20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-54676-6 DU

Matrix: Solid

Analysis Batch: 78926

Client Sample ID: MW-22 (18-20)

Prep Type: Total/NA

RPD

Analyte Result Qualifier Result Qualifier Unit RPD Limit Percent Moisture % 16 16 2.00 Percent Solids 84 84 % 0.300

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

GC/MS VOA

Prep Batch: 78887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	5035	
600-54676-2	MW-21 (11-12)	Total/NA	Solid	5035	
600-54676-4	MW-22 (8-10)	Total/NA	Solid	5035	
600-54676-5	MW-22 (12-14)	Total/NA	Solid	5035	
600-54676-6	MW-22 (18-20)	Total/NA	Solid	5035	
600-54676-7	Dup -1	Total/NA	Solid	5035	
600-54676-7 MS	Dup -1	Total/NA	Solid	5035	
600-54676-7 MSD	Dup -1	Total/NA	Solid	5035	

Analysis Batch: 78972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	8260B	78887
600-54676-2	MW-21 (11-12)	Total/NA	Solid	8260B	78887
600-54676-4	MW-22 (8-10)	Total/NA	Solid	8260B	78887
600-54676-5	MW-22 (12-14)	Total/NA	Solid	8260B	78887
600-54676-6	MW-22 (18-20)	Total/NA	Solid	8260B	78887
600-54676-7	Dup -1	Total/NA	Solid	8260B	78887
600-54676-7 MS	Dup -1	Total/NA	Solid	8260B	78887
600-54676-7 MSD	Dup -1	Total/NA	Solid	8260B	78887
LCS 600-78972/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-78972/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 79199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-8	Trip Blank	Total/NA	Water	8260B	
LCS 600-79199/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79199/4	Method Blank	Total/NA	Water	8260B	

Prep Batch: 79457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-79457/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 600-79457/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 600-79457/3-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 79461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-2 - DL	MW-21 (11-12)	Total/NA	Solid	5035	-
600-54676-3 - DL	MW-21 (14-15)	Total/NA	Solid	5035	

Analysis Batch: 79558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-2 - DL	MW-21 (11-12)	Total/NA	Solid	8260B	79461
600-54676-3 - DL	MW-21 (14-15)	Total/NA	Solid	8260B	79461
LCS 600-79457/1-A	Lab Control Sample	Total/NA	Solid	8260B	79457
LCSD 600-79457/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	79457
MB 600-79457/3-A	Method Blank	Total/NA	Solid	8260B	79457

GC/MS Semi VOA

Prep Batch: 79176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	3550B	

TestAmerica Houston 5/30/2012

Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

GC/MS Semi VOA (Continued)

Prep Batch: 79176 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-2	MW-21 (11-12)	Total/NA	Solid	3550B	
600-54676-3	MW-21 (14-15)	Total/NA	Solid	3550B	
600-54676-3 MS	MW-21 (14-15)	Total/NA	Solid	3550B	
600-54676-3 MSD	MW-21 (14-15)	Total/NA	Solid	3550B	
600-54676-4	MW-22 (8-10)	Total/NA	Solid	3550B	
600-54676-5	MW-22 (12-14)	Total/NA	Solid	3550B	
600-54676-6	MW-22 (18-20)	Total/NA	Solid	3550B	
600-54676-7	Dup -1	Total/NA	Solid	3550B	
LCS 600-79176/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 600-79176/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 79269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	8270C LL	79176
600-54676-2	MW-21 (11-12)	Total/NA	Solid	8270C LL	79176
600-54676-3	MW-21 (14-15)	Total/NA	Solid	8270C LL	79176
600-54676-3 MS	MW-21 (14-15)	Total/NA	Solid	8270C LL	79176
600-54676-3 MSD	MW-21 (14-15)	Total/NA	Solid	8270C LL	79176
600-54676-4	MW-22 (8-10)	Total/NA	Solid	8270C LL	79176
600-54676-5	MW-22 (12-14)	Total/NA	Solid	8270C LL	79176
600-54676-6	MW-22 (18-20)	Total/NA	Solid	8270C LL	79176
600-54676-7	Dup -1	Total/NA	Solid	8270C LL	79176
LCS 600-79176/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	79176
MB 600-79176/1-A	Method Blank	Total/NA	Solid	8270C LL	79176

GC Semi VOA

Prep Batch: 79083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	TX_1005_S_Pre	
				р	
600-54676-2	MW-21 (11-12)	Total/NA	Solid	TX_1005_S_Pre	
				р	
600-54676-3	MW-21 (14-15)	Total/NA	Solid	TX_1005_S_Pre	
				р	
600-54676-4	MW-22 (8-10)	Total/NA	Solid	TX_1005_S_Pre	
				р	
600-54676-5	MW-22 (12-14)	Total/NA	Solid	TX_1005_S_Pre	
				р	
600-54676-6	MW-22 (18-20)	Total/NA	Solid	TX_1005_S_Pre	
				р	
600-54676-7	Dup -1	Total/NA	Solid	TX_1005_S_Pre	
				р	
LCS 600-79083/2-A	Lab Control Sample	Total/NA	Solid	TX_1005_S_Pre	
				р	
MB 600-79083/1-A	Method Blank	Total/NA	Solid	TX_1005_S_Pre	
				р	

Analysis Batch: 79161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	TX 1005	79083
600-54676-2	MW-21 (11-12)	Total/NA	Solid	TX 1005	79083
600-54676-3	MW-21 (14-15)	Total/NA	Solid	TX 1005	79083
600-54676-4	MW-22 (8-10)	Total/NA	Solid	TX 1005	79083

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QC Association Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

GC Semi VOA (Continued)

Analysis Batch: 79161 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-5	MW-22 (12-14)	Total/NA	Solid	TX 1005	79083
600-54676-6	MW-22 (18-20)	Total/NA	Solid	TX 1005	79083
600-54676-7	Dup -1	Total/NA	Solid	TX 1005	79083
LCS 600-79083/2-A	Lab Control Sample	Total/NA	Solid	TX 1005	79083
MB 600-79083/1-A	Method Blank	Total/NA	Solid	TX 1005	79083

Metals

Prep Batch: 78888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	3050B	
600-54676-2	MW-21 (11-12)	Total/NA	Solid	3050B	
600-54676-3	MW-21 (14-15)	Total/NA	Solid	3050B	
600-54676-3 DU	MW-21 (14-15)	Total/NA	Solid	3050B	
600-54676-3 MS	MW-21 (14-15)	Total/NA	Solid	3050B	
600-54676-3 MSD	MW-21 (14-15)	Total/NA	Solid	3050B	
600-54676-4	MW-22 (8-10)	Total/NA	Solid	3050B	
600-54676-5	MW-22 (12-14)	Total/NA	Solid	3050B	
600-54676-6	MW-22 (18-20)	Total/NA	Solid	3050B	
600-54676-7	Dup -1	Total/NA	Solid	3050B	
LCS 600-78888/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-78888/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 78949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	7471A	
600-54676-1 DU	MW-21 (6-7)	Total/NA	Solid	7471A	
600-54676-1 MS	MW-21 (6-7)	Total/NA	Solid	7471A	
600-54676-2	MW-21 (11-12)	Total/NA	Solid	7471A	
600-54676-3	MW-21 (14-15)	Total/NA	Solid	7471A	
600-54676-4	MW-22 (8-10)	Total/NA	Solid	7471A	
600-54676-5	MW-22 (12-14)	Total/NA	Solid	7471A	
600-54676-6	MW-22 (18-20)	Total/NA	Solid	7471A	
600-54676-7	Dup -1	Total/NA	Solid	7471A	
LCS 600-78949/8-A ^100	Lab Control Sample	Total/NA	Solid	7471A	
MB 600-78949/7-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 78964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	6010B	78888
600-54676-2	MW-21 (11-12)	Total/NA	Solid	6010B	78888
600-54676-3	MW-21 (14-15)	Total/NA	Solid	6010B	78888
600-54676-3 DU	MW-21 (14-15)	Total/NA	Solid	6010B	78888
600-54676-3 MS	MW-21 (14-15)	Total/NA	Solid	6010B	78888
600-54676-3 MSD	MW-21 (14-15)	Total/NA	Solid	6010B	78888
600-54676-4	MW-22 (8-10)	Total/NA	Solid	6010B	78888
600-54676-5	MW-22 (12-14)	Total/NA	Solid	6010B	78888
600-54676-6	MW-22 (18-20)	Total/NA	Solid	6010B	78888
600-54676-7	Dup -1	Total/NA	Solid	6010B	78888
LCS 600-78888/2-A	Lab Control Sample	Total/NA	Solid	6010B	78888
MB 600-78888/1-A	Method Blank	Total/NA	Solid	6010B	78888

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QC Association Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Metals (Continued)

Analysis Batch: 79029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	7471A	78949
600-54676-1 DU	MW-21 (6-7)	Total/NA	Solid	7471A	78949
600-54676-1 MS	MW-21 (6-7)	Total/NA	Solid	7471A	78949
600-54676-2	MW-21 (11-12)	Total/NA	Solid	7471A	78949
600-54676-3	MW-21 (14-15)	Total/NA	Solid	7471A	78949
600-54676-4	MW-22 (8-10)	Total/NA	Solid	7471A	78949
600-54676-5	MW-22 (12-14)	Total/NA	Solid	7471A	78949
600-54676-6	MW-22 (18-20)	Total/NA	Solid	7471A	78949
600-54676-7	Dup -1	Total/NA	Solid	7471A	78949
LCS 600-78949/8-A ^100	Lab Control Sample	Total/NA	Solid	7471A	78949
MB 600-78949/7-A	Method Blank	Total/NA	Solid	7471A	78949

General Chemistry

Analysis Batch: 78926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	Moisture	15 (5
600-54676-2	MW-21 (11-12)	Total/NA	Solid	Moisture	
600-54676-3	MW-21 (14-15)	Total/NA	Solid	Moisture	
600-54676-4	MW-22 (8-10)	Total/NA	Solid	Moisture	
600-54676-5	MW-22 (12-14)	Total/NA	Solid	Moisture	
600-54676-6	MW-22 (18-20)	Total/NA	Solid	Moisture	
600-54676-6 DU	MW-22 (18-20)	Total/NA	Solid	Moisture	
600-54676-7	Dup -1	Total/NA	Solid	Moisture	

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TestAmerica Job ID: 600-54676-1

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: 600-54676-1

Matrix: Solid

Client Sample ID: MW-21 (6-7) Date Collected: 05/07/12 09:30 Percent Solids: 77.9 Date Received: 05/09/12 09:28

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035		- 2	78887	05/09/12 09:29	WS	TAL HOU
Total/NA	Analysis	8260B		1.03	78972	05/09/12 13:29	WS	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 16:09	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/11/12 23:45	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 09:30	DCL	TAL HOU
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 15:49	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: MW-21 (11-12)

Date Collected: 05/07/12 09:35 Date Received: 05/09/12 09:28 Lab Sample ID: 600-54676-2

Matrix: Solid Percent Solids: 89.3

								
20	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			78887	05/09/12 09:29	WS	TAL HOU
Total/NA	Analysis	8260B		0.89	78972	05/09/12 15:27	WS	TAL HOU
Total/NA	Prep	5035	DL		79461	05/17/12 10:00	KLV	TAL HOU
Total/NA	Analysis	8260B	DL	1	79558	05/17/12 20:59	KLV	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Γotal/NA	Analysis	8270C LL		1	79269	05/14/12 16:35	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/12/12 00:20	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 09:34	DCL	TAL HOU
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 15:55	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: MW-21 (14-15)

Lab Sample ID: 600-54676-3 Date Collected: 05/07/12 09:40 **Matrix: Solid** Date Received: 05/09/12 09:28 Percent Solids: 88.9

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035	DL	_ :	79461	05/17/12 10:00	KLV	TAL HOU
Total/NA	Analysis	8260B	DL	1	79558	05/17/12 20:36	KLV	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 17:01	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/12/12 00:55	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 09:38	DCL	TAL HOU

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-21 (14-15)

Date Collected: 05/07/12 09:40

Project/Site: R&H Oil

Lab Sample ID: 600-54676-3

Matrix: Solid

Date Received	: 05/09/12 09	28					Po	ercent Solids: 8	3.9
	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
				_ = = = = = = = = = = = = = = = = = = =		h 	-	1	

	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Prep	7471A		_ 13	78949	05/10/12 09:31	SRP	TAL HOU	457
Total/NA	Analysis	7471A		1	79029	05/10/12 16:01	SRP	TAL HOU	
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU	
	Total/NA Total/NA	Prep Type Type Total/NA Prep Total/NA Analysis	Prep Type Type Method Total/NA Prep 7471A Total/NA Analysis 7471A	Prep Type Type Method Run Total/NA Prep 7471A Total/NA Analysis 7471A	Prep Type Type Method Run Factor Total/NA Prep 7471A Total/NA Analysis 7471A 1	Prep Type Type Method Run Factor Number Total/NA Prep 7471A 78949 Total/NA Analysis 7471A 1 79029	Prep Type Type Method Run Factor Number or Analyzed Total/NA Prep 7471A 78949 05/10/12 09:31 Total/NA Analysis 7471A 1 79029 05/10/12 16:01	Prep Type Type Method Run Factor Number or Analyzed Analyst Total/NA Prep 7471A 78949 05/10/12 09:31 SRP Total/NA Analysis 7471A 1 79029 05/10/12 16:01 SRP	Prep Type Type Method Run Factor Number or Analyzed Analyst Lab Total/NA Prep 7471A 78949 05/10/12 09:31 SRP TAL HOU Total/NA Analysis 7471A 1 79029 05/10/12 16:01 SRP TAL HOU

Client Sample ID: MW-22 (8-10) Lab Sample ID: 600-54676-4

Date Collected: 05/07/12 13:45 **Matrix: Solid** Date Received: 05/09/12 09:28 Percent Solids: 83.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035		— ti	78887	05/09/12 11:30	WS	TAL HOU
Total/NA	Analysis	8260B		1.09	78972	05/09/12 12:40	WS	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 18:19	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/12/12 02:05	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 09:53	DCL	TAL HOU
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 16:03	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: MW-22 (12-14) Lab Sample ID: 600-54676-5

Date Collected: 05/07/12 13:55 **Matrix: Solid** Date Received: 05/09/12 09:28 Percent Solids: 90.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035		177 <u> </u>	78887	05/09/12 11:30	WS	TAL HOU
Total/NA	Analysis	8260B		1.05	78972	05/09/12 13:05	WS	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 18:45	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/14/12 10:56	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 09:57	DCL	TAL HOU
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 16:05	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: MW-22 (18-20) Lab Sample ID: 600-54676-6

Date Collected: 05/07/12 14:00 Matrix: Solid Date Received: 05/09/12 09:28 Percent Solids: 84.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			78887	05/09/12 11:30	WS	TAL HOU

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: MW-22 (18-20)

Lab San

Date Collected: 05/07/12 14:00 Date Received: 05/09/12 09:28 Lab Sample ID: 600-54676-6

Matrix: Solid
Percent Solids: 84.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		0.79	78972	05/09/12 11:54	WS	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 19:11	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/14/12 11:30	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 10:09	DCL	TAL HOU
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 16:07	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: Dup -1

Date Collected: 05/07/12 00:00

Lab Sample ID: 600-54676-7

Matrix: Solid

Date Received: 05/09/12 00:00 Matrix. Solid

Date Received: 05/09/12 09:28 Percent Solids: 90.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035	* **	- 13 14	78887	05/09/12 11:30	WS	TAL HOU
Total/NA	Analysis	8260B		1.09	78972	05/09/12 12:17	WS	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 19:37	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/14/12 12:05	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 10:13	DCL	TAL HOU
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 16:09	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: Trip Blank

Date Collected: 05/07/12 00:00

Lab Sample ID: 600-54676-8

Matrix: Water

Date Collected: 05/07/12 00:00 Date Received: 05/09/12 09:28

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79199	05/14/12 17:36	DT	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Houston	Arkansas DEQ	State Program	6	88-0759
TestAmerica Houston	Louisiana	NELAC	6	30643
TestAmerica Houston	Oklahoma	State Program	6	9503
TestAmerica Houston	Texas	NELAC	6	T104704223-10-6-TX
TestAmerica Houston	USDA	Federal		P330-08-00217
TestAmerica Houston	Utah	NELAC	8	GULF

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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Method Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
7471A	Mercury (CVAA)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TCEQ = Texas Commission of Environmental Quality

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-54676-1	MW-21 (6-7)	Solid	05/07/12 09:30	05/09/12 09:28
600-54676-2	MW-21 (11-12)	Solid	05/07/12 09:35	05/09/12 09:28
600-54676-3	MW-21 (14-15)	Solid	05/07/12 09:40	05/09/12 09:28
600-54676-4	MW-22 (8-10)	Solid	05/07/12 13:45	05/09/12 09:28
600-54676-5	MW-22 (12-14)	Solid	05/07/12 13:55	05/09/12 09:28
600-54676-6	MW-22 (18-20)	Solid	05/07/12 14:00	05/09/12 09:28
600-54676-7	Dup -1	Solid	05/07/12 00:00	05/09/12 09:28
600-54676-8	Trip Blank	Water	05/07/12 00:00	05/09/12 09:28

6310 Rothway Street

Houston, TX 77040

Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

= 9670.

5/30/2012

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Page 76 of

Lap PM: Carrier Tracking No(s): COC No THAI Client Information Kudchadkar, Sachin G 600-9060.1 Client Contact: E-Mail: Mr. Tim Nickels sachin.kudchadkar@testamericainc.com Page of Company: Job #: Pastor, Behling & Wheeler LLC Analysis Requested Address: Due Dato Requested: Preservation Codes: 2201 Double Creek Dr Suite 4004 A - HCL M - Hexare TAT Requested (days): B - NaOH N - None Round Rock C - Zn Acetate 0 - AsNa02 P - Na204S D - Nitric Acid State, Zip: E - VaHS04 Q - Na2SO3 TX, 78664 F . MeOH R - Na2S2SO3 Phone: PO# G - Amchlor S-H2SO4 512-671-3434(Tel) 512-671-3446(Fax) H - Ascorbic Acid T - TSP Dodecahydrate Email: WO #: I - Ice U - Acetone Field Filtered Sample (Yes or Perform MSIMSD (Yes or No) 6010B, 7470A- Metals- TOTAL TX_1005- TPH: HOLD TX1006 J - DI Water V - MGAA tim.nickels@pbwllc.com Total Number of containers K-EDTA W-ph 4-5 Project Name: Project #: L-EDA Z - other (specify) 60002002 R&H Oil SSOW#: Other: San Antonio Matrix Sample (W=water, Type Sesolk, Sample (C=comp, Sample Identification Sample Date Time G=grab) Special Instructions/Note: Preservation Code: (6-1 0930 5/7/12 6 MW-21 (11-12 0935 MW-21 (14-15 0940 8-10 1345 1355 1400 W Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Month Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological Months Deliverable Requested: I, II, III, IV, Other (specify) Special Instructions/QC Requirements: Empty Kit Relinquished by: Date: Time: lethod of Shipment: Relinquished by: PBW PBW Date/Tim 1700 0929 Company Relinguished by: Received by: Company Relinquished by: Date/Time Company Received by: Date/Time Company Custody Seals Intact: Custody Seal No.: Cooler Temperature(s) °C and Other Remarks: A Yes A No

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC Job Number: 600-54676-1

Login Number: 54676 List Source: TestAmerica Houston

List Number: 1

Creator: Fuentes Jr, Fabio

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-54839-1

Client Project/Site: R&H Oil

For:

Pastor, Behling & Wheeler LLC 2201 Double Creek Dr Suite 4004 Round Rock, Texas 78664

Attn: Mr. Tim Nickels

Authorized for release by:

5/30/2012 7:58:36 PM

Cathy Upton LAN Analyst

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar

Project Manager II

sachin.kudchadkar@testamericainc.com

····· Links ·····

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Χ	Surrogate is outside control limits
Metals	

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
В	Compound was found in the blank and sample.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
\tilde{\	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Case Narrative

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Job ID: 600-54839-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-54839-1

Comments

No additional comments.

Receipt

The samples were received on 5/11/2012 10:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 3.6° C, 4.1° C, 5.5° C and 5.6° C.

Except:

The Chain of Custody was received without analysis selected for the Trip Blank, so no analyses were performed.

GC/MS VOA

Method(s) 8260B: The following samples were diluted due to the abundance of target analytes: MW-14 (600-54839-2), MW-15 (600-54839-5), MW-3 (600-54839-7), MW-12 (600-54839-6), MW-17 (600-54839-4), MW-19 (600-54839-3), MW-2 (600-54839-8), and MW-18 (600-54839-14). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The following sample was diluted due to the nature of the sample matrix (foamy): MW-4 (600-54839-9). Elevated reporting limits (RL) are provided.

Method(s) 8260B: The laboratory control sample (LCS) for batch 79199 exceeded control limits for the following analytes: Chloromethane, Dichlorodifluoromethane and 1,2-Dibromo-3-chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples: therefore, the data have been reported.

Method(s) 8260B: The laboratory control samples (LCS's) for batches 79279, 79300, 79383 and 79394 exceeded control limits for the following analyte: Dichlorodifluoromethane. This analyte was biased high in the LCS's and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The continuing calibration verification (CCV) for Bromoform, trans-1,4-Dichloro-2-butene, and 1,2-Dibromo-3-chloropropane associated with batch 79199 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted.

GC/MS Semi VOA

Method(s) 8270C LL: The following sample was diluted due to the abundance of target analytes: MW-18 (600-54839-14). Elevated reporting limits (RLs) are provided.

Method(s) 8270C LL: The following sample was diluted due to the nature of the sample matrix: MW-14 (600-54839-2). Elevated reporting limits (RLs) are provided.

Method(s) 8270C LL: Six surrogates are used for this analysis. The laboratory's SOP allows one base and one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample(s) contained an allowable number of surrogate compounds outside limits: MW-17 (600-54839-4), MW-18 (600-54839-14). These results have been reported and qualified.

Method(s) 8270C LL: Due to the level of dilution required for the following samples, surrogate recoveries are not reported: MW-14 (600-54839-2), MW-3 (600-54839-7) and MW-18 (600-54839-14 DL).

Method(s) 8270C LL: The continuing calibration verification (CCV) for Bis(2-chloroisopropyl)ether associated with batch 79972 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted.

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Case Narrative

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Job ID: 600-54839-1 (Continued)

Laboratory: TestAmerica Houston (Continued)

GC Semi VOA

Method(s) TX 1005: Surrogate recovery for the following sample was outside control limits: MW-3 (600-54839-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

Metals

Method(s) 6010B: The method blank for batch 79110 contained copper and zinc above the method detection limit. These target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6010B: The continuing calibration verifications (CCV's) for vanadium associated with batch 79444 recovered above the upper control limit. The samples associated with these CCV's were non-detects for the affected analyte; therefore, the data have been reported.

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

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Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

Client Sample ID: MW-16

Lab Sample ID: 600-54839-1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.74	J	1.0	0.12	ug/L	1	-	8260B	Total/NA
Chloroform	2.8		1.0	0.13	ug/L	1		8260B	Total/NA
Toluene	5.1		1.0	0.15	ug/L	1		8260B	Total/NA
Ethylbenzene	2.3		1.0	0.11	ug/L	1		8260B	Total/NA
Xylenes, Total	5.4		1.0	0.26	ug/L	1		8260B	Total/NA
Styrene	0.078	J	1.0	0.070	ug/L	1		8260B	Total/NA
Isopropylbenzene	22		1.0	0.18	ug/L	1		8260B	Total/NA
N-Propylbenzene	24		1.0	0.15	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	1.1		1.0	0.10	ug/L	1		8260B	Total/NA
tert-Butylbenzene	0.42	J	1.0	0.080	ug/L	1		8260B	Total/NA
4-Isopropyltoluene	0.36	J	1.0	0.10	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	2.1		1.0	0.14	ug/L	1		8260B	Total/NA
sec-Butylbenzene	1.5		1.0	0.12	ug/L	1		8260B	Total/NA
n-Butylbenzene	1.6		1.0	0.16	ug/L	1		8260B	Total/NA
Naphthalene	18		1.0	0.32	ug/L	1		8260B	Total/NA
Benzene - DL	2100		100	8.0	ug/L	100		8260B	Total/NA
2-Methylnaphthalene	2.7		1.5	0.069	ug/L	1		8270C LL	Total/NA
C6-C12	4.9		1.9	0.81	mg/L	1		TX 1005	Total/NA
>C12-C28	4.9		1.9	0.93	mg/L	1		TX 1005	Total/NA
C6-C35	9.8		1.9	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.15		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.060	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.33		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.00090	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Manganese	1.0		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0023	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Zinc	0.0037	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-14

Lab Sample ID: 600-54839-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1400	0	200	22	ug/L	200		8260B	Total/NA
Xylenes, Total	13000		200	52	ug/L	200		8260B	Total/NA
Styrene	100	J	200	14	ug/L	200		8260B	Total/NA
Isopropylbenzene	81	J	200	36	ug/L	200		8260B	Total/NA
N-Propylbenzene	110	J	200	30	ug/L	200		8260B	Total/NA
1,3,5-Trimethylbenzene	440		200	20	ug/L	200		8260B	Total/NA
1,2,4-Trimethylbenzene	1100		200	28	ug/L	200		8260B	Total/NA
Naphthalene	350		200	64	ug/L	200		8260B	Total/NA
Benzene - DL	31000		1000	80	ug/L	1000		8260B	Total/NA
Toluene - DL	28000		1000	150	ug/L	1000		8260B	Total/NA
Phenol	24	J	74	2.0	ug/L	50		8270C LL	Total/NA
3 & 4 Methylphenol	86		50	9.9	ug/L	50		8270C LL	Total/NA
2,4-Dimethylphenol	640		120	15	ug/L	50		8270C LL	Total/NA
2-Methylnaphthalene	58	J	74	3.5	ug/L	50		8270C LL	Total/NA
C6-C12	40		1.9	0.81	mg/L	1		TX 1005	Total/NA
>C12-C28	1.1	J	1.9	0.93	mg/L	1		TX 1005	Total/NA
C6-C35	41		1.9	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.33		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.070	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.44		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0078	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Copper	0.0017	JВ	0.010	0.0015	mg/L	1		6010B	Total/NA

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-19

Client Sample ID: MW-14 (Continued)

Lab Sample ID: 600-54839-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	1.0	-	0.010	0.00084	mg/L	1	-	6010B	Total/NA
Nickel	0.0061	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Lead	0.0077	J	0.010	0.0029	mg/L	1		6010B	Total/NA
Zinc	0.0052	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

Lab Sample ID: 600-54839-3

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D Method	Prep Type
Methyl tert-butyl ether	130	*	50	6.0	ug/L	50	8260B	Total/NA
Chloroform	13	J	50	6.5	ug/L	50	8260B	Total/NA
Toluene	26	J	50	7.5	ug/L	50	8260B	Total/NA
Ethylbenzene	510		50	5.5	ug/L	50	8260B	Total/NA
Xylenes, Total	680		50	13	ug/L	50	8260B	Total/NA
Isopropylbenzene	30	J	50	9.0	ug/L	50	8260B	Total/NA
N-Propylbenzene	48	J	50	7.5	ug/L	50	8260B	Total/NA
1,3,5-Trimethylbenzene	86		50	5.0	ug/L	50	8260B	Total/NA
1,2,4-Trimethylbenzene	300		50	7.0	ug/L	50	8260B	Total/NA
Naphthalene	180		50	16	ug/L	50	8260B	Total/NA
Benzene - DL	4400		500	40	ug/L	500	8260B	Total/NA
Phenol	3.9	J	15	0.40	ug/L	10	8270C LL	Total/NA
3 & 4 Methylphenol	2.1	J	10	2.0	ug/L	10	8270C LL	Total/NA
2-Methylnaphthalene	43		15	0.70	ug/L	10	8270C LL	Total/NA
C6-C12	4.4		1.9	0.81	mg/L	1	TX 1005	Total/NA
>C12-C28	2.4		1.9	0.93	mg/L	1	TX 1005	Total/NA
C6-C35	6.8		1.9	1.5	mg/L	1	TX 1005	Total/NA
Arsenic	0.034		0.010	0.0033	mg/L	1	6010B	Total/NA
Aluminum	0.043	J	0.50	0.022	mg/L	1	6010B	Total/NA
Barium	0.16		0.020	0.0022	mg/L	1	6010B	Total/NA
Manganese	0.66		0.010	0.00084	mg/L	1	6010B	Total/NA
Zinc	0.0090	JB	0.030	0.0022	mg/L	1	6010B	Total/NA

Client Sample ID: MW-17

Lab Sample ID: 600-54839-4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	17	J	50	6.5	ug/L	50	_	8260B	Total/NA
Toluene	9.9	J	50	7.5	ug/L	50		8260B	Total/NA
Ethylbenzene	340		50	5.5	ug/L	50		8260B	Total/NA
Xylenes, Total	360		50	13	ug/L	50		8260B	Total/NA
Isopropylbenzene	22	J	50	9.0	ug/L	50		8260B	Total/NA
N-Propylbenzene	41	J	50	7.5	ug/L	50		8260B	Total/NA
1,3,5-Trimethylbenzene	98		50	5.0	ug/L	50		8260B	Total/NA
1,2,4-Trimethylbenzene	290		50	7.0	ug/L	50		8260B	Total/NA
Naphthalene	150		50	16	ug/L	50		8260B	Total/NA
Benzene - DL	2500		200	16	ug/L	200		8260B	Total/NA
Phenol	2.5	J	15	0.40	ug/L	10		8270C LL	Total/NA
2-Methylnaphthalene	22		15	0.70	ug/L	10		8270C LL	Total/NA
C6-C12	2.7		2.0	0.81	mg/L	1		TX 1005	Total/NA
>C12-C28	3.1		2.0	0.94	mg/L	1		TX 1005	Total/NA
C6-C35	5.8		2.0	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.026		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.059	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.12		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0013	J	0.010	0.00063	mg/L	1		6010B	Total/NA

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-17 (Continued)

Lab Sample ID: 600-54839-4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.50		0.010	0.00084	mg/L	1		6010B	 Total/NA
Zinc	0.0028	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-15 Lab Sample ID: 600-54839-5

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	66	8	10	1.2	ug/L	10	(C-1)	8260B	Total/NA
1,2-Dichloropropane	6.4	J	10	1.6	ug/L	10		8260B	Total/NA
Chloroform	7.5	J	10	1.3	ug/L	10		8260B	Total/NA
Toluene	66		10	1.5	ug/L	10		8260B	Total/NA
Xylenes, Total	2100		10	2.6	ug/L	10		8260B	Total/NA
Styrene	8.0	J	10	0.70	ug/L	10		8260B	Total/NA
Isopropylbenzene	22		10	1.8	ug/L	10		8260B	Total/NA
N-Propylbenzene	36		10	1.5	ug/L	10		8260B	Total/NA
1,3,5-Trimethylbenzene	110		10	1.0	ug/L	10		8260B	Total/NA
tert-Butylbenzene	47		10	0.80	ug/L	10		8260B	Total/NA
4-Isopropyltoluene	2.6	J	10	1.0	ug/L	10		8260B	Total/NA
1,2,4-Trimethylbenzene	330		10	1.4	ug/L	10		8260B	Total/NA
sec-Butylbenzene	2.2	J	10	1.2	ug/L	10		8260B	Total/NA
n-Butylbenzene	7.6	J	10	1.6	ug/L	10		8260B	Total/NA
Naphthalene	130		10	3.2	ug/L	10		8260B	Total/NA
Benzene - DL	14000		1000	80	ug/L	1000		8260B	Total/NA
Ethylbenzene - DL	510		100	11	ug/L	100		8260B	Total/NA
Phenol	73		15	0.39	ug/L	10		8270C LL	Total/NA
3 & 4 Methylphenol	5.9	J	9.9	2.0	ug/L	10		8270C LL	Total/NA
2,4-Dimethylphenol	34		25	3.1	ug/L	10		8270C LL	Total/NA
2-Methylnaphthalene	33		15	0.69	ug/L	10		8270C LL	Total/NA
C6-C12	12		2.0	0.82	mg/L	1		TX 1005	Total/NA
>C12-C28	3.9		2.0	0.94	mg/L	1		TX 1005	Total/NA
C6-C35	16		2.0	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.24		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.037	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.47		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0040	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Copper	0.0030	JB	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.63		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0094	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Selenium	0.0050	J	0.040	0.0042	mg/L	1		6010B	Total/NA
Vanadium	0.0032	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0048	JΒ	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-12 Lab Sample ID: 600-54839-6

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloropropane	23	J	50	8.0	ug/L	50	_	8260B	Total/NA
Chloroform	20	J	50	6.5	ug/L	50		8260B	Total/NA
Toluene	100		50	7.5	ug/L	50		8260B	Total/NA
Ethylbenzene	1700		50	5.5	ug/L	50		8260B	Total/NA
Xylenes, Total	8000		50	13	ug/L	50		8260B	Total/NA
Styrene	7.0	J	50	3.5	ug/L	50		8260B	Total/NA
Isopropylbenzene	76		50	9.0	ug/L	50		8260B	Total/NA
N-Propylbenzene	120		50	7.5	ug/L	50		8260B	Total/NA
1,3,5-Trimethylbenzene	400		50	5.0	ug/L	50		8260B	Total/NA

Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

Client Sample ID: MW-12 (Continued)

Lab Sample ID: 600-54839-6

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac D	Method	Prep Type
4-Isopropyltoluene	9.3	J	50	5.0	ug/L	50	8260B	Total/NA
1,2,4-Trimethylbenzene	1200		50	7.0	ug/L	50	8260B	Total/NA
n-Butylbenzene	25	J	50	8.0	ug/L	50	8260B	Total/NA
Naphthalene	510		50	16	ug/L	50	8260B	Total/NA
Benzene - DL	26000		1000	80	ug/L	1000	8260B	Total/NA
Phenol	24		15	0.39	ug/L	10	8270C LL	Total/NA
3 & 4 Methylphenol	47		9.9	2.0	ug/L	10	8270C LL	Total/NA
2,4-Dimethylphenol	60		25	3.1	ug/L	10	8270C LL	Total/NA
2-Methylnaphthalene	76		15	0.69	ug/L	10	8270C LL	Total/NA
C6-C12	17		2.0	0.82	mg/L	1	TX 1005	Total/NA
C6-C35	17		2.0	1.5	mg/L	1	TX 1005	Total/NA
Arsenic	0.21		0.010	0.0033	mg/L	1	6010B	Total/NA
Aluminum	0.057	J	0.50	0.022	mg/L	1	6010B	Total/NA
Barium	0.62		0.020	0.0022	mg/L	1	6010B	Total/NA
Cobalt	0.0037	J	0.010	0.00063	mg/L	1	6010B	Total/NA
Manganese	0.89		0.010	0.00084	mg/L	1	6010B	Total/NA
Nickel	0.0052	J	0.010	0.0018	mg/L	1	6010B	Total/NA
Lead	0.0038	J	0.010	0.0029	mg/L	1	6010B	Total/NA
Zinc	0.0046	JB	0.030	0.0022	mg/L	1	6010B	Total/NA

Client Sample ID: MW-3 Lab Sample ID: 600-54839-7

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac D	Method	Prep Type
1,2-Dichloropropane	81	J	200	32	ug/L	200	8260B	Total/NA
Chloroform	43	J	200	26	ug/L	200	8260B	Total/NA
Toluene	1400		200	30	ug/L	200	8260B	Total/NA
Ethylbenzene	1500		200	22	ug/L	200	8260B	Total/NA
Xylenes, Total	15000		200	52	ug/L	200	8260B	Total/NA
Styrene	83	J	200	14	ug/L	200	8260B	Total/NA
Isopropylbenzene	180	J	200	36	ug/L	200	8260B	Total/NA
N-Propylbenzene	260		200	30	ug/L	200	8260B	Total/NA
1,3,5-Trimethylbenzene	1500		200	20	ug/L	200	8260B	Total/NA
4-Isopropyltoluene	72	J	200	20	ug/L	200	8260B	Total/NA
1,2,4-Trimethylbenzene	2700		200	28	ug/L	200	8260B	Total/NA
sec-Butylbenzene	47	J	200	24	ug/L	200	8260B	Total/NA
n-Butylbenzene	190	J	200	32	ug/L	200	8260B	Total/NA
Naphthalene	820		200	64	ug/L	200	8260B	Total/NA
Benzene - DL	17000		2000	160	ug/L	2000	8260B	Total/NA
Phenol	18	J	74	2.0	ug/L	50	8270C LL	Total/NA
3 & 4 Methylphenol	35	J	49	9.9	ug/L	50	8270C LL	Total/NA
2-Methylnaphthalene	900		74	3.4	ug/L	50	8270C LL	Total/NA
C6-C12	280		9.7	4.0	mg/L	5	TX 1005	Total/NA
>C12-C28	160		9.7	4.7	mg/L	5	TX 1005	Total/NA
>C28-C35	21		9.7	4.7	mg/L	5	TX 1005	Total/NA
C6-C35	460		9.7	7.6	mg/L	5	TX 1005	Total/NA
Arsenic	0.095		0.010	0.0033	mg/L	1	6010B	Total/NA
Aluminum	0.066	J	0.50	0.022	mg/L	1	6010B	Total/NA
Barium	0.44		0.020	0.0022	mg/L	1	6010B	Total/NA
Cobalt	0.0025	J	0.010	0.00063	mg/L	1	6010B	Total/NA
Chromium	0.0018	J	0.010	0.0016	mg/L	1	6010B	Total/NA
Copper	0.0081	JB	0.010	0.0015	mg/L	1	6010B	Total/NA
Manganese	1.0		0.010	0.00084	mg/L	1	6010B	Total/NA
Nickel	0.0047	J	0.010	0.0018	mg/L	1	6010B	Total/NA

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-3 (Continued)

Lab Sample ID: 600-54839-7

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.033		0.010	0.0029	mg/L	1		6010B	Total/NA
Vanadium	0.0068	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0091	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-2 Lab Sample ID: 600-54839-8

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D Method	Prep Type
Methyl tert-butyl ether	1.9	J	5.0	0.60	ug/L	5	8260B	Total/NA
Methylene Chloride	0.95	J	25	0.75	ug/L	5	8260B	Total/NA
1,2-Dichloropropane	2.4	J	5.0	0.80	ug/L	5	8260B	Total/NA
Toluene	2.8	J	5.0	0.75	ug/L	5	8260B	Total/NA
Ethylbenzene	3.0	J	5.0	0.55	ug/L	5	8260B	Total/NA
Xylenes, Total	2.0	J	5.0	1.3	ug/L	5	8260B	Total/NA
Isopropylbenzene	29		5.0	0.90	ug/L	5	8260B	Total/NA
N-Propylbenzene	31		5.0	0.75	ug/L	5	8260B	Total/NA
tert-Butylbenzene	0.89	J	5.0	0.40	ug/L	5	8260B	Total/NA
4-Isopropyltoluene	2.3	J	5.0	0.50	ug/L	5	8260B	Total/NA
sec-Butylbenzene	3.4	J	5.0	0.60	ug/L	5	8260B	Total/NA
n-Butylbenzene	3.2	J	5.0	0.80	ug/L	5	8260B	Total/NA
Naphthalene	2.2	J	5.0	1.6	ug/L	5	8260B	Total/NA
Benzene - DL	390		50	4.0	ug/L	50	8260B	Total/NA
2-Methylnaphthalene	51		15	0.69	ug/L	10	8270C LL	Total/NA
Acenaphthene	1.5	J	9.9	0.79	ug/L	10	8270C LL	Total/NA
Fluorene	1.6	J	15	0.69	ug/L	10	8270C LL	Total/NA
Arsenic	0.38		0.010	0.0033	mg/L	1	6010B	Total/NA
Aluminum	0.077	J	0.50	0.022	mg/L	1	6010B	Total/NA
Barium	0.18		0.020	0.0022	mg/L	1	6010B	Total/NA
Cobalt	0.0010	J	0.010	0.00063	mg/L	1	6010B	Total/NA
Copper	0.0015	JB	0.010	0.0015	mg/L	1	6010B	Total/NA
Manganese	0.36		0.010	0.00084	mg/L	1	6010B	Total/NA
Nickel	0.0033	J	0.010	0.0018	mg/L	1	6010B	Total/NA
Zinc	0.0048	JB	0.030	0.0022	mg/L	1	6010B	Total/NA

Client Sample ID: MW-4 Lab Sample ID: 600-54839-9

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.41	J	5.0	0.40	ug/L	5	_	8260B	Total/NA
Fluorene	0.20	J	1.5	0.069	ug/L	1		8270C LL	Total/NA
Arsenic	0.0034	J	0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.051	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.23		0.020	0.0022	mg/L	1		6010B	Total/NA
Chromium	0.0022	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Copper	0.0049	JB	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.31		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0032	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Lead	0.0032	J	0.010	0.0029	mg/L	1		6010B	Total/NA
Vanadium	0.0088	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.012	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-20 Lab Sample ID: 600-54839-10

Analyte	Result Qualific	er MQL (Adj)	SDL Unit	Dil Fac D Meth	od Prep Type
Methyl tert-butyl ether	3.1	1.0	0.12 ug/L	1 8260	

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-20 (Continued)

Lab Sample ID: 600-54839-10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.20	J	1.5	0.069	ug/L	1		8270C LL	Total/NA
Di-n-butyl phthalate	0.11	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.31	J	2.5	0.12	ug/L	1		8270C LL	Total/NA
Aluminum	0.10	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.14		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.00070	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Manganese	0.083		0.010	0.00084	mg/L	1		6010B	Total/NA
Vanadium	0.0061	J	0.010	0.0017	mg/L	1		6010B	Total/NA
7inc	0.0044	JB	0.030	0.0022	ma/l	00,000,000		6010B	Total/NA

Client Sample ID: MW-9 Lab Sample ID: 600-54839-11

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D N	Method	Prep Type
Benzene	0.23	J	1.0	0.080	ug/L	1	- 8	8260B	Total/NA
Trichloroethene	1.2		1.0	0.18	ug/L	1	8	8260B	Total/NA
Chloroform	0.38	J	1.0	0.13	ug/L	1	8	8260B	Total/NA
Tetrachloroethene	1.2		1.0	0.13	ug/L	1	8	8260B	Total/NA
Ethylbenzene	1.2		1.0	0.11	ug/L	1	8	8260B	Total/NA
Diethyl phthalate	1.5	J	2.5	1.5	ug/L	1	8	8270C LL	Total/NA
Di-n-butyl phthalate	0.29	J	2.5	0.11	ug/L	1	8	8270C LL	Total/NA
Butyl benzyl phthalate	0.28	J	2.5	0.12	ug/L	1	8	8270C LL	Total/NA
Bis(2-ethylhexyl) phthalate	0.42	J	2.5	0.36	ug/L	1	8	8270C LL	Total/NA
Aluminum	0.034	J	0.50	0.022	mg/L	1	6	6010B	Total/NA
Barium	0.21		0.020	0.0022	mg/L	1	6	6010B	Total/NA
Chromium	0.0016	J	0.010	0.0016	mg/L	1	6	6010B	Total/NA
Copper	0.0022	JB	0.010	0.0015	mg/L	1	6	6010B	Total/NA
Manganese	0.024		0.010	0.00084	mg/L	1	6	6010B	Total/NA
Vanadium	0.0092	J	0.010	0.0017	mg/L	1	6	6010B	Total/NA
Zinc	0.0031	JВ	0.030	0.0022	mg/L	1	6	6010B	Total/NA

Client Sample ID: MW-21 Lab Sample ID: 600-54839-12

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.37	J	1.0	0.12	ug/L	1	_	8260B	Total/NA
cis-1,2-Dichloroethene	0.82	J	1.0	0.060	ug/L	1		8260B	Total/NA
Benzene	0.33	J	1.0	0.080	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.72	J	1.0	0.14	ug/L	1		8260B	Total/NA
Trichloroethene	2.3		1.0	0.18	ug/L	1		8260B	Total/NA
Chloroform	0.17	J	1.0	0.13	ug/L	1		8260B	Total/NA
Bromodichloromethane	1.2		1.0	0.16	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.2		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	6.6		1.0	0.11	ug/L	1		8260B	Total/NA
Isopropylbenzene	1.9		1.0	0.18	ug/L	1		8260B	Total/NA
N-Propylbenzene	2.3		1.0	0.15	ug/L	1		8260B	Total/NA
tert-Butylbenzene	0.19	J	1.0	0.080	ug/L	1		8260B	Total/NA
sec-Butylbenzene	0.26	J	1.0	0.12	ug/L	1		8260B	Total/NA
n-Butylbenzene	0.37	J	1.0	0.16	ug/L	1		8260B	Total/NA
Naphthalene	3.3		1.0	0.32	ug/L	1		8260B	Total/NA
2-Methylnaphthalene	0.11	J	1.5	0.069	ug/L	1		8270C LL	Total/NA
Dibenzofuran	0.13	J	1.5	0.079	ug/L	1		8270C LL	Total/NA
Fluorene	0.31	J	1.5	0.069	ug/L	1		8270C LL	Total/NA
Phenanthrene	0.16	J	1.5	0.059	ug/L	1		8270C LL	Total/NA
Di-n-butyl phthalate	0.14	J	2.5	0.11	ug/L	1		8270C LL	Total/NA

TestAmerica Houston 5/30/2012

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Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-21 (Continued)

Lab Sample ID: 600-54839-12

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Butyl benzyl phthalate	0.27	J	2.5	0.12	ug/L	1		8270C LL	Total/NA
Bis(2-ethylhexyl) phthalate	0.39	J	2.5	0.36	ug/L	1		8270C LL	Total/NA
Arsenic	0.019		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.14	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.11		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0025	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Manganese	0.29		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0022	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Vanadium	0.0093	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0037	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-22 Lab Sample ID: 600-54839-13

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.53	J	1.0	0.12	ug/L	1	_	8260B	Total/NA
Trichloroethene	1.2		1.0	0.18	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.4		1.0	0.13	ug/L	1		8260B	Total/NA
Naphthalene	0.69	J	1.0	0.32	ug/L	1		8260B	Total/NA
Butyl benzyl phthalate	0.27	J	2.5	0.12	ug/L	1		8270C LL	Total/NA
Bis(2-ethylhexyl) phthalate	0.46	J	2.5	0.36	ug/L	1		8270C LL	Total/NA
Aluminum	0.041	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.18		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.00070	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Manganese	0.19		0.010	0.00084	mg/L	1		6010B	Total/NA
Vanadium	0.0042	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0030	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-18 Lab Sample ID: 600-54839-14

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	4500	8	200	30	ug/L	200	WIII	8260B	Total/NA
Ethylbenzene	960		200	22	ug/L	200		8260B	Total/NA
Xylenes, Total	4100		200	52	ug/L	200		8260B	Total/NA
Styrene	19	J	200	14	ug/L	200		8260B	Total/NA
Isopropylbenzene	56	J	200	36	ug/L	200		8260B	Total/NA
N-Propylbenzene	52	J	200	30	ug/L	200		8260B	Total/NA
1,3,5-Trimethylbenzene	190	J	200	20	ug/L	200		8260B	Total/NA
1,2,4-Trimethylbenzene	480		200	28	ug/L	200		8260B	Total/NA
Naphthalene	160	J	200	64	ug/L	200		8260B	Total/NA
Benzene - DL	22000		5000	400	ug/L	5000		8260B	Total/NA
Phenol	31		15	0.39	ug/L	10		8270C LL	Total/NA
3 & 4 Methylphenol	110		9.9	2.0	ug/L	10		8270C LL	Total/NA
2-Methylnaphthalene	64		15	0.69	ug/L	10		8270C LL	Total/NA
2,4-Dimethylphenol - DL	660		120	15	ug/L	50		8270C LL	Total/NA
C6-C12	19		2.0	0.81	mg/L	1		TX 1005	Total/NA
>C12-C28	2.7		2.0	0.94	mg/L	1		TX 1005	Total/NA
C6-C35	22		2.0	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.15		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.041	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.40		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0029	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Copper	0.0024	JB	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.93		0.010	0.00084	mg/L	1		6010B	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-18 (Continued)

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-14

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.0047	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Lead	0.0033	J	0.010	0.0029	mg/L	1		6010B	Total/NA
Zinc	0.0034	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-16
Date Collected: 05/10/12 07:50
Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organi Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/16/12 17:41	
Chloromethane	0.18	U	2.0	0.18	ug/L			05/16/12 17:41	
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/16/12 17:41	
Bromomethane	0.25	U	2.0	0.25	ug/L			05/16/12 17:41	
Chloroethane	0.080	U	2.0	0.080	-			05/16/12 17:41	
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/16/12 17:41	
1,1-Dichloroethene	0.19	U	1.0		ug/L			05/16/12 17:41	
trans-1,2-Dichloroethene	0.090	U	1.0	0.090				05/16/12 17:41	
Methyl tert-butyl ether	0.74	J	1.0		ug/L			05/16/12 17:41	
Acetone	0.99	U	5.0	0.99	ug/L			05/16/12 17:41	
lodomethane	2.0	U	2.0		ug/L			05/16/12 17:41	
Carbon disulfide	0.24	U	2.0		ug/L			05/16/12 17:41	
Methylene Chloride	0.15	U	5.0		ug/L			05/16/12 17:41	
cis-1,2-Dichloroethene	0.060	U	1.0	0.060				05/16/12 17:41	
2-Butanone (MEK)	0.76	U	2.0		ug/L			05/16/12 17:41	
Carbon tetrachloride	0.15	U	1.0		ug/L			05/16/12 17:41	
1,2-Dichloroethane	0.14	U	1.0		ug/L			05/16/12 17:41	
Trichloroethene	0.18		1.0		ug/L			05/16/12 17:41	
1,1,1-Trichloroethane	0.15	U	1.0		ug/L			05/16/12 17:41	
1,1-Dichloroethane	0.11	U	1.0		ug/L			05/16/12 17:41	
1,2-Dichloropropane	0.16	U	1.0		ug/L			05/16/12 17:41	
2,2-Dichloropropane	0.13	U	1.0		ug/L			05/16/12 17:41	
Dibromomethane	0.52	U	1.0		ug/L			05/16/12 17:41	
Chloroform	2.8		1.0		ug/L			05/16/12 17:41	
Bromodichloromethane	0.16	U	1.0		ug/L			05/16/12 17:41	
1,1-Dichloropropene	0.21	U	1.0		ug/L			05/16/12 17:41	
cis-1,3-Dichloropropene	0.18	U	1.0		ug/L			05/16/12 17:41	
4-Methyl-2-pentanone (MIBK)	0.45	Ü	2.0		ug/L			05/16/12 17:41	
Toluene	5.1		1.0		ug/L			05/16/12 17:41	
trans-1,3-Dichloropropene	0.21	U	1.0		ug/L			05/16/12 17:41	
1,1,2-Trichloroethane	0.28	U	1.0		ug/L			05/16/12 17:41	
Tetrachloroethene	0.13	U	1.0		ug/L			05/16/12 17:41	
1,3-Dichloropropane	0.22	U	1.0		ug/L			05/16/12 17:41	
2-Hexanone	0.35		2.0		ug/L			05/16/12 17:41	
Dibromochloromethane	0.15		1.0		ug/L			05/16/12 17:41	
1,2-Dibromoethane	0.18		1.0		ug/L			05/16/12 17:41	
Chlorobenzene	0.12		1.0		ug/L			05/16/12 17:41	
1,1,1,2-Tetrachloroethane	0.18		1.0		ug/L			05/16/12 17:41	
Ethylbenzene	2.3		1.0		ug/L			05/16/12 17:41	
Xylenes, Total	5.4		1.0		ug/L			05/16/12 17:41	
Styrene	0.078	J	1.0	0.070				05/16/12 17:41	
Bromoform	0.19		1.0		ug/L			05/16/12 17:41	
Isopropylbenzene	22		1.0		ug/L			05/16/12 17:41	
Bromobenzene	0.19	U	1.0		ug/L			05/16/12 17:41	
1,2,3-Trichloropropane	0.29		1.0		ug/L			05/16/12 17:41	
1,1,2,2-Tetrachloroethane	0.22		1.0		ug/L			05/16/12 17:41	
N-Propylbenzene	24		1.0		ug/L			05/16/12 17:41	
2-Chlorotoluene	0.13	U	1.0		ug/L			05/16/12 17:41	
4-Chlorotoluene	0.14		1.0		ug/L			05/16/12 17:41	
1,3,5-Trimethylbenzene	1.1	-	1.0		ug/L			05/16/12 17:41	
tert-Butylbenzene	0.42		1.0	0.080	-			05/16/12 17:41	

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-16

Date Collected: 05/10/12 07:50

Date Received: 05/11/12 10:10

Project/Site: R&H Oil

Lab Sample ID: 600-54839-1

TestAmerica Job ID: 600-54839-1

Matrix: Water

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	0.36	J	1.0	0.10	ug/L		Terriere energe	05/16/12 17:41	1
1,2,4-Trimethylbenzene	2.1		1.0	0.14	ug/L			05/16/12 17:41	1
sec-Butylbenzene	1.5		1.0	0.12	ug/L			05/16/12 17:41	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 17:41	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 17:41	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 17:41	1
n-Butylbenzene	1.6		1.0	0.16	ug/L			05/16/12 17:41	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 17:41	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/16/12 17:41	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/16/12 17:41	1
Naphthalene	18		1.0	0.32	ug/L			05/16/12 17:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101	S	67 - 139			_		05/16/12 17:41	
Dibromofluoromethane	93		62 - 130					05/16/12 17:41	1
Toluene-d8 (Surr)	86		70 - 130					05/16/12 17:41	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134					05/16/12 17:41	enanaa 1

Method: 8260B - Volatile Organic	c Compounds ((GC/MS) - D)L						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2100	·	100	8.0	ug/L			05/16/12 18:10	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139			-		05/16/12 18:10	100
Dibromofluoromethane	78		62 - 130					05/16/12 18:10	100
Toluene-d8 (Surr)	84		70 - 130					05/16/12 18:10	100
1,2-Dichloroethane-d4 (Surr)	78		50 - 134					05/16/12 18:10	100

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 16:37	1
Phenol	0.040	U	1.5	0.040	ug/L		05/14/12 16:21	05/15/12 16:37	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/15/12 16:37	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/14/12 16:21	05/15/12 16:37	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/14/12 16:21	05/15/12 16:37	1
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/14/12 16:21	05/15/12 16:37	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/14/12 16:21	05/15/12 16:37	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/14/12 16:21	05/15/12 16:37	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/14/12 16:21	05/15/12 16:37	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 16:37	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 16:37	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/14/12 16:21	05/15/12 16:37	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/14/12 16:21	05/15/12 16:37	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 16:37	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/14/12 16:21	05/15/12 16:37	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/14/12 16:21	05/15/12 16:37	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/14/12 16:21	05/15/12 16:37	1
2-Methylnaphthalene	2.7		1.5	0.069	ug/L		05/14/12 16:21	05/15/12 16:37	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 16:37	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/14/12 16:21	05/15/12 16:37	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/14/12 16:21	05/15/12 16:37	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 16:37	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-1

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-16 Date Collected: 05/10/12 07:50

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued) Dil Fac Result Qualifier SDL Unit D Prepared Analyte MQL (Adj) Analyzed 2-Nitroaniline 0.19 Ū 0.19 05/14/12 16:21 05/15/12 16:37 2.5 ug/L 0.069 Dimethyl phthalate 0.069 U 2.5 ug/L 05/14/12 16:21 05/15/12 16:37 Acenaphthylene 0.059 U 0.99 0.059 ug/L 05/14/12 16:21 05/15/12 16:37 2.6-Dinitrotoluene 0.079 U 0.99 0.079 ug/L 05/14/12 16:21 05/15/12 16:37 3-Nitroaniline 0.16 U 2.5 0.16 ug/L 05/14/12 16:21 05/15/12 16:37 ug/L 0.079 U 0.99 05/14/12 16:21 05/15/12 16:37 Acenaphthene 0.079 2,4-Dinitrophenol 0.39 U 5.0 0.39 ug/L 05/14/12 16:21 05/15/12 16:37 4-Nitrophenol 0.55 U 2.5 05/14/12 16:21 05/15/12 16:37 0.55 ug/L Dibenzofuran 0.079 U 1.5 0.079 ug/L 05/14/12 16:21 05/15/12 16:37 2,4-Dinitrotoluene 0.13 U 1.5 0.13 ug/L 05/14/12 16:21 05/15/12 16:37 Diethyl phthalate 1.5 U 2.5 1.5 ug/L 05/14/12 16:21 05/15/12 16:37 0.099 U 05/14/12 16:21 4-Chlorophenyl phenyl ether 1.5 0.099 ug/L 05/15/12 16:37 Fluorene 05/15/12 16:37 0.069 U 1.5 0.069 ug/L 05/14/12 16:21 1 4-Nitroaniline 0.25 U 2.5 0.25 ug/L 05/14/12 16:21 05/15/12 16:37 4,6-Dinitro-2-methylphenol 0.82 U 2.5 ug/L 05/14/12 16:21 05/15/12 16:37 0.82 4-Bromophenyl phenyl ether 0.099 U 1.5 0.099 05/14/12 16:21 05/15/12 16:37 ug/L 0.11 U 1.5 0.11 ug/L Hexachlorobenzene 05/14/12 16:21 05/15/12 16:37 Pentachlorophenol 0.60 U 2.5 0.60 05/14/12 16:21 05/15/12 16:37 ug/L Phenanthrene 0.059 U 1.5 05/14/12 16:21 05/15/12 16:37 0.059 ug/L Anthracene 0.050 U 0.99 0.050 ug/L 05/14/12 16:21 05/15/12 16:37 Di-n-butyl phthalate 05/14/12 16:21 0.11 U 2.5 0.11 ug/L 05/15/12 16:37 Fluoranthene 0.069 U 2.5 0.069 ug/L 05/14/12 16:21 05/15/12 16:37 Pyrene 0.11 U 2.0 0.11 ug/L 05/14/12 16:21 05/15/12 16:37 Butyl benzyl phthalate 0.12 U 2.5 0.12 ug/L 05/14/12 16:21 05/15/12 16:37 3,3'-Dichlorobenzidine 0.18 U 9.9 0.18 ug/L 05/14/12 16:21 05/15/12 16:37 2.0 ug/L Benzo[a]anthracene 0.079 U 0.079 05/14/12 16:21 05/15/12 16:37 Bis(2-ethylhexyl) phthalate 0.37 U 2.5 05/14/12 16:21 05/15/12 16:37 0.37 ug/L Chrysene 0.079 U 0.079 ug/L 05/14/12 16:21 05/15/12 16:37 1.5 Di-n-octyl phthalate 0.16 U 5.0 ug/L 05/14/12 16:21 05/15/12 16:37 0.16 0.069 U 2.0 05/14/12 16:21 Benzo[b]fluoranthene 0.069 ug/L 05/15/12 16:37 Benzo[k]fluoranthene 0.089 U 2.0 0.089 ug/L 05/14/12 16:21 05/15/12 16:37 Benzo[a]pyrene 0.079 U 1.5 0.079 ug/L 05/14/12 16:21 05/15/12 16:37 Indeno[1,2,3-cd]pyrene 0.069 U 2.0 0.069 ug/L 05/14/12 16:21 05/15/12 16:37 Dibenz(a,h)anthracene 0.079 U 2.5 0.079 ug/L 05/14/12 16:21 05/15/12 16:37 2.5 Benzo[g,h,i]perylene 0.079 U 0.079 ug/L 05/14/12 16:21 05/15/12 16:37 %Recovery Limits Dil Fac Surrogate Qualifier Prepared Analyzed 34 10 - 94 05/14/12 16:21 05/15/12 16:37 Phenol-d6 2,4,6-Tribromophenol 89 10 - 123 05/14/12 16:21 05/15/12 16:37 1 2-Fluorobiphenyl 89 43 - 116 05/14/12 16:21 05/15/12 16:37 38 10 - 100 05/14/12 16:21 05/15/12 16:37 2-Fluorophenol 91 Nitrobenzene-d5 35 - 114 05/14/12 16:21 05/15/12 16:37 Terphenyl-d14 63 33 - 141 05/14/12 16:21 05/15/12 16:37

Metho	d: TX 1005 - Texas - Total Petroleum F	vdrocarbon	(GC)						
Analyte		ult Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12		1.9	1.9	0.81	mg/L		05/15/12 14:14	05/16/12 02:11	1
>C12-C	28	1.9	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 02:11	1
>C28-C	35 0.	93 U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 02:11	1
C6-C35		0.8	1.9	1.5	ma/L		05/15/12 14:14	05/16/12 02:11	1

3

5

7

6

9

11 12

13

15

Client: Pastor, Behling & Wheeler LLC

Date Received: 05/11/12 10:10

Project/Site: R&H Oil

Lab Sample ID: 600-54839-1

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-16 Date Collected: 05/10/12 07:50

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	92		70 - 130				05/15/12 14:14	05/16/12 02:11	1
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.15	£	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:34	1
Aluminum	0.060	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:34	1
Barium	0.33		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:34	1
Cobalt	0.00090	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:34	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:34	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:34	1
Manganese	1.0		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:34	1
Nickel	0.0023	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:34	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:34	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:34	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:34	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 18:34	1
Zinc	0.0037	JB	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:34	1
Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 15:52	1

Client Sample ID: MW-14 Lab Sample ID: 600-54839-2

Date Collected: 05/10/12 09:20 Matrix: Water Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	24	U *	200	24	ug/L	31 -31 5		05/14/12 19:59	200
Chloromethane	36	U *	400	36	ug/L			05/14/12 19:59	200
Vinyl chloride	22	U	400	22	ug/L			05/14/12 19:59	200
Bromomethane	50	U	400	50	ug/L			05/14/12 19:59	200
Chloroethane	16	U	400	16	ug/L			05/14/12 19:59	200
Trichlorofluoromethane	16	U	200	16	ug/L			05/14/12 19:59	200
1,1-Dichloroethene	38	U	200	38	ug/L			05/14/12 19:59	200
trans-1,2-Dichloroethene	18	U	200	18	ug/L			05/14/12 19:59	200
Methyl tert-butyl ether	24	U	200	24	ug/L			05/14/12 19:59	200
Acetone	200	U	1000	200	ug/L			05/14/12 19:59	200
lodomethane	400	U	400	400	ug/L			05/14/12 19:59	200
Carbon disulfide	48	U	400	48	ug/L			05/14/12 19:59	200
Methylene Chloride	30	U	1000	30	ug/L			05/14/12 19:59	200
cis-1,2-Dichloroethene	12	U	200	12	ug/L			05/14/12 19:59	200
2-Butanone (MEK)	150	U	400	150	ug/L			05/14/12 19:59	200
Carbon tetrachloride	30	U	200	30	ug/L			05/14/12 19:59	200
1,2-Dichloroethane	28	U	200	28	ug/L			05/14/12 19:59	200
Trichloroethene	36	U	200	36	ug/L			05/14/12 19:59	200
1,1,1-Trichloroethane	30	U	200	30	ug/L			05/14/12 19:59	200
1,1-Dichloroethane	22	U	200	22	ug/L			05/14/12 19:59	200
1,2-Dichloropropane	32	U	200	32	ug/L			05/14/12 19:59	200
2,2-Dichloropropane	26	U	200	26	ug/L			05/14/12 19:59	200
Dibromomethane	100	U	200	100	ug/L			05/14/12 19:59	200
Chloroform	26	U	200	26	ug/L			05/14/12 19:59	200

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-2

Matrix: Water

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Client Sample ID: MW-14 Date Collected: 05/10/12 09:20 Date Received: 05/11/12 10:10

1,2-Dichloroethane-d4 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued) Result Qualifier SDL Unit D Dil Fac Analyte Prepared Analyzed Bromodichloromethane 32 Ū 200 32 05/14/12 19:59 ug/L 200 42 U 200 200 1,1-Dichloropropene 05/14/12 19:59 42 ug/L cis-1,3-Dichloropropene 36 U 200 36 ug/L 05/14/12 19:59 200 4-Methyl-2-pentanone (MIBK) 90 U 400 90 ug/L 05/14/12 19:59 200 trans-1,3-Dichloropropene 42 U 200 42 ug/L 05/14/12 19:59 200 56 200 200 1.1.2-Trichloroethane 56 ug/L 05/14/12 19:59 Tetrachloroethene 26 U 200 26 ug/L 05/14/12 19:59 200 1,3-Dichloropropane 44 U 200 ug/L 05/14/12 19:59 200 44 70 - 11 400 05/14/12 19:59 2-Hexanone 70 ug/L 200 Dibromochloromethane 30 200 30 ug/L 05/14/12 19:59 200 200 1,2-Dibromoethane 36 U 36 ug/L 05/14/12 19:59 200 24 U 200 05/14/12 19:59 Chlorobenzene 24 ug/L 200 36 U 200 1,1,1,2-Tetrachloroethane 36 ug/L 05/14/12 19:59 200 Ethylbenzene 1400 200 22 ug/L 05/14/12 19:59 200 200 52 ug/L 05/14/12 19:59 200 13000 **Xylenes, Total** 200 05/14/12 19:59 200 Styrene 100 J ug/L 200 ug/L 200 Bromoform 38 U 38 05/14/12 19:59 Isopropylbenzene 81 200 36 ug/L 05/14/12 19:59 200 38 U 200 05/14/12 19:59 200 Bromobenzene 38 ug/L 1,2,3-Trichloropropane 58 U 200 58 ug/L 05/14/12 19:59 200 1,1,2,2-Tetrachloroethane 44 U 200 44 ug/L 05/14/12 19:59 200 200 30 200 N-Propylbenzene 110 ug/L 05/14/12 19:59 2-Chlorotoluene 26 U 200 26 ug/L 05/14/12 19:59 200 4-Chlorotoluene 28 U 200 28 ug/L 05/14/12 19:59 200 1,3,5-Trimethylbenzene 440 200 20 ug/L 05/14/12 19:59 200 200 tert-Butylbenzene 16 U 200 05/14/12 19:59 16 ug/L 4-Isopropyltoluene 20 200 05/14/12 19:59 200 20 ug/L 200 28 ug/L 05/14/12 19:59 200 1,2,4-Trimethylbenzene 1100 sec-Butylbenzene 24 U 200 24 ug/L 05/14/12 19:59 200 26 U 200 1.3-Dichlorobenzene 26 ug/L 05/14/12 19:59 200 1,4-Dichlorobenzene 22 U 200 22 ug/L 05/14/12 19:59 200 1,2-Dichlorobenzene 20 U 200 20 ug/L 05/14/12 19:59 200 200 n-Butylbenzene 32 U 32 ug/L 05/14/12 19:59 200 ug/L 1,2-Dibromo-3-Chloropropane 160 U 200 160 05/14/12 19:59 200 1,2,4-Trichlorobenzene 62 U 200 62 ug/L 05/14/12 19:59 200 200 Hexachlorobutadiene 34 34 ug/L 05/14/12 19:59 200 200 05/14/12 19:59 200 Naphthalene 350 64 ug/L Surrogate %Recovery Qualifier I imits Prepared Dil Fac Analyzed 4-Bromofluorobenzene 98 67 - 139 05/14/12 19:59 200 Dibromofluoromethane 78 62 - 130 05/14/12 19:59 200 Toluene-d8 (Surr) 70 - 130 05/14/12 19:59 90 200

Method: 8260B - Volatile Or	ganic Compounds	(GC/MS) - D	L						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	31000	×	1000	80	ug/L			05/15/12 18:53	1000
Toluene	28000		1000	150	ug/L			05/15/12 18:53	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98	6	67 - 139			5		05/15/12 18:53	1000
Dibromofluoromethane	79		62 - 130					05/15/12 18:53	1000

50 - 134

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05/14/12 19:59

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: MW-14 Lab Sample ID: 600-54839-2

Date Collected: 05/10/12 09:20 Matrix: Water

Date Received: 05/10/12 09:20 Matrix: water

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	87		70 - 130		05/15/12 18:53	1000
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		05/15/12 18:53	1000

Toluene-d8 (Surr)	87		70 - 130					05/15/12 18:53	1000
1,2-Dichloroethane-d4 (Surr)	79		50 - 134					05/15/12 18:53	1000
Method: 8270C LL - Semivolati	le Organic Com	oounds by	GCMS - Low Lev	/els					
Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Aniline	4.0	U	74	4.0	ug/L	21 -21	05/14/12 16:21	05/22/12 14:25	50
Phenol	24	J	74	2.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Bis(2-chloroethyl)ether	7.4	U	74	7.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
2-Chlorophenol	6.4	U	99	6.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
Benzyl alcohol	8.4	U	270	8.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
Bis(2-chloroisopropyl) ether	20	U	74	20	ug/L		05/14/12 16:21	05/22/12 14:25	50
3 & 4 Methylphenol	86		50	9.9	ug/L		05/14/12 16:21	05/22/12 14:25	50
N-Nitrosodi-n-propylamine	5.0		120	5.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Hexachloroethane	5.0	U	99	5.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Nitrobenzene	5.4	U	74		ug/L		05/14/12 16:21	05/22/12 14:25	50
Isophorone	5.4	U	74		ug/L		05/14/12 16:21	05/22/12 14:25	50
2-Nitrophenol	11		50		ug/L		05/14/12 16:21	05/22/12 14:25	50
2,4-Dimethylphenol	640		120		ug/L		05/14/12 16:21	05/22/12 14:25	50
Bis(2-chloroethoxy)methane	6.4	U	74		ug/L		05/14/12 16:21	05/22/12 14:25	50
2,4-Dichlorophenol	7.4		120		ug/L		05/14/12 16:21	05/22/12 14:25	50
4-Chloroaniline	10		50		ug/L		05/14/12 16:21	05/22/12 14:25	50
4-Chloro-3-methylphenol	8.4		50		ug/L		05/14/12 16:21	05/22/12 14:25	50
- ·	58		74		ug/L		05/14/12 16:21	05/22/12 14:25	50
2-Methylnaphthalene	6.4		74		ou du en la ella		05/14/12 16:21		
Hexachlorocyclopentadiene	8.9		99		ug/L			05/22/12 14:25	50
2,4,6-Trichlorophenol					ug/L		05/14/12 16:21	05/22/12 14:25	50
2,4,5-Trichlorophenol	12		99		ug/L		05/14/12 16:21	05/22/12 14:25	50
2-Chloronaphthalene	4.0		74		ug/L		05/14/12 16:21	05/22/12 14:25	50
2-Nitroaniline	9.4		120		ug/L		05/14/12 16:21	05/22/12 14:25	50
Dimethyl phthalate	3.5		120		ug/L		05/14/12 16:21	05/22/12 14:25	50
Acenaphthylene	3.0		50		ug/L		05/14/12 16:21	05/22/12 14:25	50
2,6-Dinitrotoluene	4.0		50		ug/L		05/14/12 16:21	05/22/12 14:25	50
3-Nitroaniline	7.9		120		ug/L		05/14/12 16:21	05/22/12 14:25	50
Acenaphthene	4.0		50	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
2,4-Dinitrophenol		U	250	19	ug/L		05/14/12 16:21	05/22/12 14:25	50
4-Nitrophenol	28	U	120	28	ug/L		05/14/12 16:21	05/22/12 14:25	50
Dibenzofuran	4.0	U	74	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
2,4-Dinitrotoluene	6.4	U	74	6.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
Diethyl phthalate	74	U	120	74	ug/L		05/14/12 16:21	05/22/12 14:25	50
4-Chlorophenyl phenyl ether	5.0	U	74	5.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Fluorene	3.5	U	74	3.5	ug/L		05/14/12 16:21	05/22/12 14:25	50
4-Nitroaniline	12	U	120	12	ug/L		05/14/12 16:21	05/22/12 14:25	50
4,6-Dinitro-2-methylphenol	41	U	120	41	ug/L		05/14/12 16:21	05/22/12 14:25	50
4-Bromophenyl phenyl ether	5.0	U	74	5.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Hexachlorobenzene	5.4	U	74	5.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
Pentachlorophenol	30	U	120	30	ug/L		05/14/12 16:21	05/22/12 14:25	50
Phenanthrene	3.0	U	74	3.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Anthracene	2.5	U	50		ug/L		05/14/12 16:21	05/22/12 14:25	50
Di-n-butyl phthalate	5.4	U	120		ug/L		05/14/12 16:21	05/22/12 14:25	50
Fluoranthene	3.5		120		ug/L		05/14/12 16:21	05/22/12 14:25	50
Pyrene	5.4		99		ug/L		05/14/12 16:21	05/22/12 14:25	50
Butyl benzyl phthalate	5.9		120		ug/L		05/14/12 16:21	05/22/12 14:25	50

TestAmerica Job ID: 600-54839-1

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-14

Date Collected: 05/10/12 09:20

Date Received: 05/11/12 10:10

Project/Site: R&H Oil

o-Terphenyl

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-2

Matrix: Water

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	8.9	U	500	8.9	ug/L		05/14/12 16:21	05/22/12 14:25	50
Benzo[a]anthracene	4.0	U	99	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Bis(2-ethylhexyl) phthalate	18	U	120	18	ug/L		05/14/12 16:21	05/22/12 14:25	50
Chrysene	4.0	U	74	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Di-n-octyl phthalate	7.9	U	250	7.9	ug/L		05/14/12 16:21	05/22/12 14:25	50
Benzo[b]fluoranthene	3.5	U	99	3.5	ug/L		05/14/12 16:21	05/22/12 14:25	50
Benzo[k]fluoranthene	4.5	U	99	4.5	ug/L		05/14/12 16:21	05/22/12 14:25	50
Benzo[a]pyrene	4.0	U	74	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Indeno[1,2,3-cd]pyrene	3.5	U	99	3.5	ug/L		05/14/12 16:21	05/22/12 14:25	50
Dibenz(a,h)anthracene	4.0	U	120	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Benzo[g,h,i]perylene	4.0	U	120	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				05/14/12 16:21	05/22/12 14:25	50
2,4,6-Tribromophenol	0	X	10 - 123				05/14/12 16:21	05/22/12 14:25	50
2-Fluorobiphenyl	0	Χ	43 - 116				05/14/12 16:21	05/22/12 14:25	50
2-Fluorophenol	0	Χ	10 - 100				05/14/12 16:21	05/22/12 14:25	50
Nitrobenzene-d5	0	X	35 - 114				05/14/12 16:21	05/22/12 14:25	50
Terphenyl-d14	0	X	33 - 141				05/14/12 16:21	05/22/12 14:25	50

Method: TX 1005 - Texas	- Total Petroleum Hyd	rocarbon (6	GC)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	40		1.9	0.81	mg/L		05/15/12 14:14	05/16/12 02:45	1
>C12-C28	1.1	J	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 02:45	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 02:45	1
C6-C35	41		1.9	1.5	mg/L		05/15/12 14:14	05/16/12 02:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

70 - 130

74

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.33		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:37	1
Aluminum	0.070	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:37	1
Barium	0.44		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:37	1
Cobalt	0.0078	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:37	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:37	1
Copper	0.0017	J B	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:37	1
Manganese	1.0		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:37	1
Nickel	0.0061	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:37	1
Lead	0.0077	J	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:37	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:37	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:37	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 18:37	1
Zinc	0.0052	JB	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:37	1

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 15:54	1

2

3

6

8

10

11

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-3

Matrix: Water

Client Sample ID: MW-19

Date Collected: 05/10/12 11:30 Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
Dichlorodifluoromethane	6.0	U *	50	6.0	ug/L			05/14/12 18:05	5
Chloromethane	9.0	U *	100	9.0	ug/L			05/14/12 18:05	5
/inyl chloride	5.5	U	100	5.5	ug/L			05/14/12 18:05	5
Bromomethane	13	U	100	13	ug/L			05/14/12 18:05	5
Chloroethane	4.0	U	100		ug/L			05/14/12 18:05	5
richlorofluoromethane	4.0	U	50	4.0	ug/L			05/14/12 18:05	5
,1-Dichloroethene	9.5	U	50		ug/L			05/14/12 18:05	5
rans-1,2-Dichloroethene	4.5	U	50		ug/L			05/14/12 18:05	5
Methyl tert-butyl ether	130		50		ug/L			05/14/12 18:05	5
cetone	50	U	250		ug/L			05/14/12 18:05	
odomethane	100	U	100		ug/L			05/14/12 18:05	Ę
Carbon disulfide	12		100		ug/L			05/14/12 18:05	
Nethylene Chloride	7.5		250		ug/L			05/14/12 18:05	
sis-1,2-Dichloroethene	3.0		50		ug/L			05/14/12 18:05	Ę
-Butanone (MEK)	38		100		ug/L			05/14/12 18:05	į
Carbon tetrachloride	7.5		50		ug/L			05/14/12 18:05	
,2-Dichloroethane	7.0		50		ug/L			05/14/12 18:05	į
richloroethene	9.0		50		ug/L ug/L			05/14/12 18:05	
,1,1-Trichloroethane	7.5		50		ug/L			05/14/12 18:05	
	7.5 5.5		50		ug/L ug/L			05/14/12 18:05	,
,1-Dichloroethane									
,2-Dichloropropane	8.0		50		ug/L			05/14/12 18:05	
,2-Dichloropropane	6.5		50		ug/L			05/14/12 18:05	
Dibromomethane	26		50		ug/L			05/14/12 18:05	
Chloroform	13		50		ug/L			05/14/12 18:05	
romodichloromethane	8.0		50		ug/L			05/14/12 18:05	
,1-Dichloropropene	11		50	11	Ū			05/14/12 18:05	;
is-1,3-Dichloropropene	9.0		50		ug/L			05/14/12 18:05	
-Methyl-2-pentanone (MIBK)	23		100		ug/L			05/14/12 18:05	
oluene	26		50		ug/L			05/14/12 18:05	
ans-1,3-Dichloropropene	11		50	11				05/14/12 18:05	
,1,2-Trichloroethane	14		50		ug/L			05/14/12 18:05	
etrachloroethene	6.5	U	50	6.5	ug/L			05/14/12 18:05	
,3-Dichloropropane	11	U	50	11	ug/L			05/14/12 18:05	
-Hexanone	18	U	100	18	ug/L			05/14/12 18:05	
Dibromochloromethane	7.5	U	50		ug/L			05/14/12 18:05	
,2-Dibromoethane	9.0	U	50		ug/L			05/14/12 18:05	
chlorobenzene	6.0	U	50	6.0	ug/L			05/14/12 18:05	
,1,1,2-Tetrachloroethane	9.0	U	50	9.0	ug/L			05/14/12 18:05	
thylbenzene	510		50	5.5	ug/L			05/14/12 18:05	;
ylenes, Total	680		50	13	ug/L			05/14/12 18:05	00,00,00
tyrene	3.5	U	50	3.5	ug/L			05/14/12 18:05	
romoform	9.5	U	50	9.5	ug/L			05/14/12 18:05	
opropylbenzene	30	J	50	9.0	ug/L			05/14/12 18:05	
romobenzene	9.5	U	50	9.5	ug/L			05/14/12 18:05	
,2,3-Trichloropropane	15	U	50	15	ug/L			05/14/12 18:05	
1,2,2-Tetrachloroethane	11	U	50	11	ug/L			05/14/12 18:05	
-Propylbenzene	48	J	50		ug/L			05/14/12 18:05	
-Chlorotoluene	6.5		50		ug/L			05/14/12 18:05	
-Chlorotoluene	7.0		50		ug/L			05/14/12 18:05	
,3,5-Trimethylbenzene	86		50		ug/L			05/14/12 18:05	
ert-Butylbenzene	4.0		50		ug/L			05/14/12 18:05	

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-19

Date Collected: 05/10/12 11:30

Date Received: 05/11/12 10:10

Project/Site: R&H Oil

Lab Sample ID: 600-54839-3

TestAmerica Job ID: 600-54839-1

Matrix: Water

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	5.0	U	50	5.0	ug/L			05/14/12 18:05	50
1,2,4-Trimethylbenzene	300		50	7.0	ug/L			05/14/12 18:05	50
sec-Butylbenzene	6.0	U	50	6.0	ug/L			05/14/12 18:05	50
1,3-Dichlorobenzene	6.5	U	50	6.5	ug/L			05/14/12 18:05	50
1,4-Dichlorobenzene	5.5	U	50	5.5	ug/L			05/14/12 18:05	50
1,2-Dichlorobenzene	5.0	U	50	5.0	ug/L			05/14/12 18:05	50
n-Butylbenzene	8.0	U	50	8.0	ug/L			05/14/12 18:05	50
1,2-Dibromo-3-Chloropropane	41	U *	50	41	ug/L			05/14/12 18:05	50
1,2,4-Trichlorobenzene	16	U	50	16	ug/L			05/14/12 18:05	50
Hexachlorobutadiene	8.5	U	50	8.5	ug/L			05/14/12 18:05	50
Naphthalene	180		50	16	ug/L			05/14/12 18:05	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94	S	67 - 139			_		05/14/12 18:05	50
Dibromofluoromethane	81		62 - 130					05/14/12 18:05	50
Toluene-d8 (Surr)	86		70 - 130					05/14/12 18:05	50
1,2-Dichloroethane-d4 (Surr)	79		50 - 134					05/14/12 18:05	50
- Method: 8260B - Volatile Orga	nic Compounds	(GC/MS) - D)I						
Analyte	•	Qualifier	MQL (Adj)	SDI	Unit	D	Prepared	Analyzed	Dil Fac

Benzene	4400	·	500	40	ug/L		05/15/12 14:08	500
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		67 - 139				05/15/12 14:08	500
Dibromofluoromethane	81		62 - 130				05/15/12 14:08	500
Toluene-d8 (Surr)	86		70 - 130				05/15/12 14:08	500
1,2-Dichloroethane-d4 (Surr)	79		50 - 134				05/15/12 14:08	500

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:09	10
Phenol	3.9	J	15	0.40	ug/L		05/14/12 16:21	05/18/12 01:09	10
Bis(2-chloroethyl)ether	1.5	U	15	1.5	ug/L		05/14/12 16:21	05/18/12 01:09	10
2-Chlorophenol	1.3	U	20	1.3	ug/L		05/14/12 16:21	05/18/12 01:09	10
Benzyl alcohol	1.7	U	55	1.7	ug/L		05/14/12 16:21	05/18/12 01:09	10
Bis(2-chloroisopropyl) ether	4.0	U	15	4.0	ug/L		05/14/12 16:21	05/18/12 01:09	10
3 & 4 Methylphenol	2.1	J	10	2.0	ug/L		05/14/12 16:21	05/18/12 01:09	10
N-Nitrosodi-n-propylamine	1.0	U	25	1.0	ug/L		05/14/12 16:21	05/18/12 01:09	10
Hexachloroethane	1.0	U	20	1.0	ug/L		05/14/12 16:21	05/18/12 01:09	10
Nitrobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 01:09	10
Isophorone	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 01:09	10
2-Nitrophenol	2.2	U	10	2.2	ug/L		05/14/12 16:21	05/18/12 01:09	10
2,4-Dimethylphenol	3.1	U	25	3.1	ug/L		05/14/12 16:21	05/18/12 01:09	10
Bis(2-chloroethoxy)methane	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 01:09	10
2,4-Dichlorophenol	1.5	U	25	1.5	ug/L		05/14/12 16:21	05/18/12 01:09	10
4-Chloroaniline	2.1	U	10	2.1	ug/L		05/14/12 16:21	05/18/12 01:09	10
4-Chloro-3-methylphenol	1.7	U	10	1.7	ug/L		05/14/12 16:21	05/18/12 01:09	10
2-Methylnaphthalene	43		15	0.70	ug/L		05/14/12 16:21	05/18/12 01:09	10
Hexachlorocyclopentadiene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 01:09	10
2,4,6-Trichlorophenol	1.8	U	20	1.8	ug/L		05/14/12 16:21	05/18/12 01:09	10
2,4,5-Trichlorophenol	2.5	U	20	2.5	ug/L		05/14/12 16:21	05/18/12 01:09	10
2-Chloronaphthalene	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:09	10

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-3

TestAmerica Job ID: 600-54839-1

Matrix: Water

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Client Sample ID: MW-19 Date Collected: 05/10/12 11:30 Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued) Result Qualifier SDL Unit D Prepared Dil Fac Analyte MQL (Adj) Analyzed 2-Nitroaniline 1.9 Ū 1.9 05/14/12 16:21 05/18/12 01:09 25 ug/L 10 25 Dimethyl phthalate 0.70 U ug/L 05/14/12 16:21 05/18/12 01:09 10 0.70 Acenaphthylene 0.60 U 10 0.60 ug/L 05/14/12 16:21 05/18/12 01:09 10 2.6-Dinitrotoluene 0.80 U 10 05/14/12 16:21 05/18/12 01:09 10 0.80 ug/L 3-Nitroaniline 1.6 U 25 1.6 ug/L 05/14/12 16:21 05/18/12 01:09 10 0.80 U 10 ug/L 05/14/12 16:21 05/18/12 01:09 Acenaphthene 0.80 10 2,4-Dinitrophenol 3.9 U 50 3.9 ug/L 05/14/12 16:21 05/18/12 01:09 10 4-Nitrophenol 5.6 U 25 5.6 05/14/12 16:21 05/18/12 01:09 10 ug/L 0.80 U 15 Dibenzofuran 0.80 ug/L 05/14/12 16:21 05/18/12 01:09 10 15 2,4-Dinitrotoluene 1.3 U 1.3 ug/L 05/14/12 16:21 05/18/12 01:09 10 Diethyl phthalate 15 U 25 15 ug/L 05/14/12 16:21 05/18/12 01:09 10 1.0 U 15 05/14/12 16:21 10 4-Chlorophenyl phenyl ether 1.0 ug/L 05/18/12 01:09 0.70 U Fluorene 15 0.70 ug/L 05/14/12 16:21 05/18/12 01:09 10 4-Nitroaniline 2.5 U 25 2.5 ug/L 05/14/12 16:21 05/18/12 01:09 10 8.3 U 25 4,6-Dinitro-2-methylphenol ug/L 05/14/12 16:21 05/18/12 01:09 10 8.3 4-Bromophenyl phenyl ether 1.0 U 15 05/14/12 16:21 05/18/12 01:09 10 1.0 ug/L 1.1 U 15 ug/L Hexachlorobenzene 1.1 05/14/12 16:21 05/18/12 01:09 10 Pentachlorophenol 6.1 U 25 6.1 05/14/12 16:21 05/18/12 01:09 10 ug/L Phenanthrene 0.60 U 15 05/14/12 16:21 05/18/12 01:09 10 0.60 ug/L Anthracene 0.50 U 10 0.50 ug/L 05/14/12 16:21 05/18/12 01:09 10 Di-n-butyl phthalate 05/14/12 16:21 1.1 U 25 1.1 ua/L 05/18/12 01:09 10 0.70 U 25 10 Fluoranthene 0.70 ug/L 05/14/12 16:21 05/18/12 01:09 Pyrene 1.1 20 ug/L 05/14/12 16:21 05/18/12 01:09 10 1.1 25 Butyl benzyl phthalate 1.2 U 1.2 ug/L 05/14/12 16:21 05/18/12 01:09 10 3,3'-Dichlorobenzidine 1.8 U 100 1.8 ug/L 05/14/12 16:21 05/18/12 01:09 10 0.80 U 20 Benzo[a]anthracene 0.80 05/14/12 16:21 05/18/12 01:09 10 ug/L Bis(2-ethylhexyl) phthalate 3.7 U 25 05/14/12 16:21 05/18/12 01:09 10 3.7 ug/L Chrysene 0.80 U 15 0.80 ug/L 05/14/12 16:21 05/18/12 01:09 10 Di-n-octyl phthalate 1.6 U 50 ug/L 05/14/12 16:21 05/18/12 01:09 10 1.6 0.70 U 20 05/14/12 16:21 10 Benzo[b]fluoranthene 0.70 ug/L 05/18/12 01:09 Benzo[k]fluoranthene 0.90 U 20 0.90 ug/L 05/14/12 16:21 05/18/12 01:09 10 Benzo[a]pyrene 0.80 U 15 0.80 ug/L 05/14/12 16:21 05/18/12 01:09 10 Indeno[1,2,3-cd]pyrene 0.70 U 20 0.70 ug/L 05/14/12 16:21 05/18/12 01:09 10 Dibenz(a,h)anthracene 0.80 U 25 0.80 ug/L 05/14/12 16:21 05/18/12 01:09 10 25 Benzo[g,h,i]perylene 0.80 U 0.80 ug/L 05/14/12 16:21 05/18/12 01:09 10 Limits Dil Fac Surrogate %Recovery Qualifier Prepared Analyzed 24 10 - 94 05/14/12 16:21 05/18/12 01:09 Phenol-d6 10 2,4,6-Tribromophenol 80 10 - 123 05/14/12 16:21 05/18/12 01:09 10 2-Fluorobiphenyl 74 43 - 116 05/14/12 16:21 05/18/12 01:09 10 34 10 - 100 05/14/12 16:21 05/18/12 01:09 10 2-Fluorophenol Nitrobenzene-d5 69 35 - 114 05/14/12 16:21 05/18/12 01:09 10 Terphenyl-d14 69 33 - 141 05/14/12 16:21 05/18/12 01:09 10

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)											
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac		
C6-C12	4.4	0	1.9	0.81	mg/L		05/15/12 14:14	05/16/12 03:20	1		
>C12-C28	2.4		1.9	0.93	mg/L		05/15/12 14:14	05/16/12 03:20	1		
>C28-C35	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 03:20	1		
C6-C35	6.8		1.9	1.5	mg/L		05/15/12 14:14	05/16/12 03:20	1		

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Analyte

Mercury

Lab Sample ID: 600-54839-3

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-19 Date Collected: 05/10/12 11:30 Date Received: 05/11/12 10:10

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	92		70 - 130				05/15/12 14:14	05/16/12 03:20	1
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.034	\$	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:39	1
Aluminum	0.043	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:39	1
Barium	0.16		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:39	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:39	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:39	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:39	1
Manganese	0.66		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:39	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:39	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:39	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:39	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:39	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 18:39	1
Zinc	0.0090	JB	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:39	1

Client Sample ID: MW-17 Lab Sample ID: 600-54839-4 Date Collected: 05/10/12 12:40 Matrix: Water

MQL (Adj)

0.00020

SDL Unit

0.000026 mg/L

Prepared

05/14/12 09:05 05/14/12 15:56

Result Qualifier

0.000026 U

Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	6.0	U *	50	6.0	ug/L	31 -31 5		05/14/12 18:33	50
Chloromethane	9.0	U *	100	9.0	ug/L			05/14/12 18:33	50
Vinyl chloride	5.5	U	100	5.5	ug/L			05/14/12 18:33	50
Bromomethane	13	U	100	13	ug/L			05/14/12 18:33	50
Chloroethane	4.0	U	100	4.0	ug/L			05/14/12 18:33	50
Trichlorofluoromethane	4.0	U	50	4.0	ug/L			05/14/12 18:33	50
1,1-Dichloroethene	9.5	U	50	9.5	ug/L			05/14/12 18:33	50
trans-1,2-Dichloroethene	4.5	U	50	4.5	ug/L			05/14/12 18:33	50
Methyl tert-butyl ether	6.0	U	50	6.0	ug/L			05/14/12 18:33	50
Acetone	50	U	250	50	ug/L			05/14/12 18:33	50
lodomethane	100	U	100	100	ug/L			05/14/12 18:33	50
Carbon disulfide	12	U	100	12	ug/L			05/14/12 18:33	50
Methylene Chloride	7.5	U	250	7.5	ug/L			05/14/12 18:33	50
cis-1,2-Dichloroethene	3.0	U	50	3.0	ug/L			05/14/12 18:33	50
2-Butanone (MEK)	38	U	100	38	ug/L			05/14/12 18:33	50
Carbon tetrachloride	7.5	U	50	7.5	ug/L			05/14/12 18:33	50
1,2-Dichloroethane	7.0	U	50	7.0	ug/L			05/14/12 18:33	50
Trichloroethene	9.0	U	50	9.0	ug/L			05/14/12 18:33	50
1,1,1-Trichloroethane	7.5	U	50	7.5	ug/L			05/14/12 18:33	50
1,1-Dichloroethane	5.5	U	50	5.5	ug/L			05/14/12 18:33	50
1,2-Dichloropropane	8.0	U	50	8.0	ug/L			05/14/12 18:33	50
2,2-Dichloropropane	6.5	U	50	6.5	ug/L			05/14/12 18:33	50
Dibromomethane	26	U	50	26	ug/L			05/14/12 18:33	50
Chloroform	17	J	50	6.5	ug/L			05/14/12 18:33	50

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Dil Fac

Analyzed

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-4

Matrix: Water

Client Sample ID: MW-17
Date Collected: 05/10/12 12:40
Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
Bromodichloromethane	8.0	U	50	8.0	ug/L			05/14/12 18:33	5
1,1-Dichloropropene	11	U	50	11	ug/L			05/14/12 18:33	50
cis-1,3-Dichloropropene	9.0	U	50	9.0	ug/L			05/14/12 18:33	50
4-Methyl-2-pentanone (MIBK)	23	U	100	23	ug/L			05/14/12 18:33	50
Toluene	9.9	J	50	7.5	ug/L			05/14/12 18:33	5
trans-1,3-Dichloropropene	11	U	50	11	ug/L			05/14/12 18:33	50
1,1,2-Trichloroethane	14	U	50	14	ug/L			05/14/12 18:33	50
Tetrachloroethene	6.5	U	50	6.5	ug/L			05/14/12 18:33	50
1,3-Dichloropropane	11	U	50	11	ug/L			05/14/12 18:33	50
2-Hexanone	18	U	100	18	ug/L			05/14/12 18:33	5
Dibromochloromethane	7.5	U	50	7.5	ug/L			05/14/12 18:33	5
1,2-Dibromoethane	9.0	U	50	9.0	ug/L			05/14/12 18:33	5
Chlorobenzene	6.0	U	50	6.0	ug/L			05/14/12 18:33	5
1,1,1,2-Tetrachloroethane	9.0	U	50	9.0	ug/L			05/14/12 18:33	5
Ethylbenzene	340		50	5.5	ug/L			05/14/12 18:33	5
Xylenes, Total	360		50	13	ug/L			05/14/12 18:33	50
Styrene	3.5	U	50		ug/L			05/14/12 18:33	50
Bromoform	9.5	U	50		ug/L			05/14/12 18:33	5
Isopropylbenzene	22		50		ug/L			05/14/12 18:33	5
Bromobenzene	9.5		50		ug/L			05/14/12 18:33	50
1,2,3-Trichloropropane	15		50		ug/L			05/14/12 18:33	50
1,1,2,2-Tetrachloroethane	11		50		ug/L			05/14/12 18:33	5(
N-Propylbenzene	41		50		ug/L			05/14/12 18:33	50
2-Chlorotoluene	6.5		50		ug/L			05/14/12 18:33	50
4-Chlorotoluene	7.0		50		ug/L			05/14/12 18:33	5(
1,3,5-Trimethylbenzene	98	·	50	5.0	ug/L			05/14/12 18:33	50
tert-Butylbenzene	4.0	U	50		ug/L			05/14/12 18:33	50
4-Isopropyltoluene	5.0		50		ug/L			05/14/12 18:33	5(
1,2,4-Trimethylbenzene	290	J	50		ug/L			05/14/12 18:33	50
sec-Butylbenzene	6.0	П	50		ug/L			05/14/12 18:33	50
1,3-Dichlorobenzene	6.5		50		ug/L			05/14/12 18:33	5(
1,4-Dichlorobenzene	5.5		50		ug/L			05/14/12 18:33	50
1,2-Dichlorobenzene	5.0		50		ug/L			05/14/12 18:33	50
n-Butylbenzene	8.0		50		ug/L			05/14/12 18:33	5(
1,2-Dibromo-3-Chloropropane		U*	50		ug/L			05/14/12 18:33	50
1,2,4-Trichlorobenzene	16		50		ug/L			05/14/12 18:33	50
Hexachlorobutadiene	8.5		50		ug/L			05/14/12 18:33	5(
	150	U	50		ug/L			05/14/12 18:33	50
Naphthalene	150		30	10	ug/L			03/14/12 10.33	31
Surrogate	%Recovery	Qualifier	Limits			-	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		67 - 139					05/14/12 18:33	50
Dibromofluoromethane	79		62 - 130					05/14/12 18:33	50
Toluene-d8 (Surr)	87		70 - 130					05/14/12 18:33	50
1,2-Dichloroethane-d4 (Surr)	78		50 - 134					05/14/12 18:33	50

Method: 8260B - Volatile Organic	Compounds	(GC/MS) - D	L						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2500		200	16	ug/L			05/15/12 16:29	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139				*	05/15/12 16:29	200
Dibromofluoromethane	81		62 - 130					05/15/12 16:29	200

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-4

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-17 Date Collected: 05/10/12 12:40

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	86	70 - 130		05/15/12 16:29	200
1,2-Dichloroethane-d4 (Surr)	79	50 - 134		05/15/12 16:29	200

Toluene-d8 (Surr)	86		70 - 130					05/15/12 16:29	200
1,2-Dichloroethane-d4 (Surr)	79		50 - 134					05/15/12 16:29	200
Method: 8270C LL - Semivola	tile Organic Com	oounds h	v GCMS - Low Lev	/els					
Analyte	•	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.80	Ū	15	0.80	ug/L	21 -21	05/14/12 16:21	05/18/12 01:35	10
Phenol	2.5	J	15	0.40	ug/L		05/14/12 16:21	05/18/12 01:35	10
Bis(2-chloroethyl)ether	1.5	U	15	1.5	ug/L		05/14/12 16:21	05/18/12 01:35	10
2-Chlorophenol	1.3	U	20	1.3	ug/L		05/14/12 16:21	05/18/12 01:35	10
Benzyl alcohol	1.7	U	55	1.7	ug/L		05/14/12 16:21	05/18/12 01:35	10
Bis(2-chloroisopropyl) ether	4.0	U	15	4.0	ug/L		05/14/12 16:21	05/18/12 01:35	10
3 & 4 Methylphenol	2.0	U	10	2.0	ug/L		05/14/12 16:21	05/18/12 01:35	10
N-Nitrosodi-n-propylamine	1.0	U	25	1.0	ug/L		05/14/12 16:21	05/18/12 01:35	10
Hexachloroethane	1.0	U	20	1.0	ug/L		05/14/12 16:21	05/18/12 01:35	10
Nitrobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
Isophorone	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
2-Nitrophenol	2.2	U	10	2.2	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,4-Dimethylphenol	3.1	U	25	3.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
Bis(2-chloroethoxy)methane	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,4-Dichlorophenol	1.5	U	25	1.5	ug/L		05/14/12 16:21	05/18/12 01:35	10
4-Chloroaniline	2.1	U	10	2.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
4-Chloro-3-methylphenol	1.7	U	10	1.7	ug/L		05/14/12 16:21	05/18/12 01:35	10
2-Methylnaphthalene	22		15	0.70	ug/L		05/14/12 16:21	05/18/12 01:35	10
Hexachlorocyclopentadiene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,4,6-Trichlorophenol	1.8	U	20	1.8	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,4,5-Trichlorophenol	2.5	U	20	2.5	ug/L		05/14/12 16:21	05/18/12 01:35	10
2-Chloronaphthalene	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
2-Nitroaniline	1.9	U	25	1.9	ug/L		05/14/12 16:21	05/18/12 01:35	10
Dimethyl phthalate	0.70	U	25	0.70	ug/L		05/14/12 16:21	05/18/12 01:35	10
Acenaphthylene	0.60	U	10	0.60	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,6-Dinitrotoluene	0.80	U	10	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
3-Nitroaniline	1.6	U	25	1.6	ug/L		05/14/12 16:21	05/18/12 01:35	10
Acenaphthene	0.80	U	10	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,4-Dinitrophenol	3.9	U	50	3.9	ug/L		05/14/12 16:21	05/18/12 01:35	10
4-Nitrophenol	5.6	U	25	5.6	ug/L		05/14/12 16:21	05/18/12 01:35	10
Dibenzofuran	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,4-Dinitrotoluene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 01:35	10
Diethyl phthalate	15	U	25	15	ug/L		05/14/12 16:21	05/18/12 01:35	10
4-Chlorophenyl phenyl ether	1.0	U	15	1.0	ug/L		05/14/12 16:21	05/18/12 01:35	10
Fluorene	0.70	U	15	0.70	ug/L		05/14/12 16:21	05/18/12 01:35	10
4-Nitroaniline	2.5	U	25	2.5	ug/L		05/14/12 16:21	05/18/12 01:35	10
4,6-Dinitro-2-methylphenol	8.3	U	25	8.3	ug/L		05/14/12 16:21	05/18/12 01:35	10
4-Bromophenyl phenyl ether	1.0	U	15	1.0	ug/L		05/14/12 16:21	05/18/12 01:35	10
Hexachlorobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
Pentachlorophenol	6.1	U	25	6.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
Phenanthrene	0.60	U	15	0.60	ug/L		05/14/12 16:21	05/18/12 01:35	10
Anthracene	0.50	U	10	0.50	ug/L		05/14/12 16:21	05/18/12 01:35	10
Di-n-butyl phthalate	1.1	U	25	1.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
Fluoranthene	0.70	U	25	0.70	ug/L		05/14/12 16:21	05/18/12 01:35	10
Pyrene	1.1	U	20	1.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
Butyl benzyl phthalate	1.2	Ū	25		ug/L		05/14/12 16:21	05/18/12 01:35	10

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-17

Date Collected: 05/10/12 12:40

Date Received: 05/11/12 10:10

Project/Site: R&H Oil

o-Terphenyl

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-4

Matrix: Water

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	1.8	U	100	1.8	ug/L		05/14/12 16:21	05/18/12 01:35	10
Benzo[a]anthracene	0.80	U	20	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
Bis(2-ethylhexyl) phthalate	3.7	U	25	3.7	ug/L		05/14/12 16:21	05/18/12 01:35	10
Chrysene	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
Di-n-octyl phthalate	1.6	U	50	1.6	ug/L		05/14/12 16:21	05/18/12 01:35	10
Benzo[b]fluoranthene	0.70	U	20	0.70	ug/L		05/14/12 16:21	05/18/12 01:35	10
Benzo[k]fluoranthene	0.90	U	20	0.90	ug/L		05/14/12 16:21	05/18/12 01:35	10
Benzo[a]pyrene	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
Indeno[1,2,3-cd]pyrene	0.70	U	20	0.70	ug/L		05/14/12 16:21	05/18/12 01:35	10
Dibenz(a,h)anthracene	0.80	U	25	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
Benzo[g,h,i]perylene	0.80	U	25	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	9	X	10 - 94				05/14/12 16:21	05/18/12 01:35	10
2,4,6-Tribromophenol	72		10 - 123				05/14/12 16:21	05/18/12 01:35	10
2-Fluorobiphenyl	92		43 - 116				05/14/12 16:21	05/18/12 01:35	10
2-Fluorophenol	43		10 - 100				05/14/12 16:21	05/18/12 01:35	10
Nitrobenzene-d5	71		35 - 114				05/14/12 16:21	05/18/12 01:35	10
Terphenyl-d14	82		33 - 141				05/14/12 16:21	05/18/12 01:35	10

Method: TX 1005 - Texas - T	otal Petroleum Hyd	rocarbon (0	GC)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	2.7		2.0	0.81	mg/L		05/15/12 14:14	05/16/12 04:30	1
>C12-C28	3.1		2.0	0.94	mg/L		05/15/12 14:14	05/16/12 04:30	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 04:30	1
C6-C35	5.8		2.0	1.5	mg/L		05/15/12 14:14	05/16/12 04:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

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Analyte	Result (Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.026		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:42	1
Aluminum	0.059	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:42	1
Barium	0.12		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:42	1
Cobalt	0.0013	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:42	1
Chromium	0.0016 L	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:42	1
Copper	0.0015 L	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:42	1
Manganese	0.50		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:42	1
Nickel	0.0018 U	U	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:42	1
Lead	0.0029 l	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:42	1
Selenium	0.0042 l	U TERRITORIO	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:42	1
Thallium	0.0078 l	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:42	1
Vanadium	0.0017 U	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 18:42	1
Zinc	0.0028	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:42	1

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 15:58	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-5

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-15

Date Collected: 05/10/12 14:20 Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.2	U *	10	1.2	ug/L			05/15/12 19:21	10
Chloromethane	1.8	U	20	1.8	ug/L			05/15/12 19:21	10
Vinyl chloride	1.1	U	20	1.1	ug/L			05/15/12 19:21	10
Bromomethane	2.5	U	20	2.5	ug/L			05/15/12 19:21	10
Chloroethane	0.80	U	20	0.80	ug/L			05/15/12 19:21	10
Trichlorofluoromethane	0.80	U	10	0.80	ug/L			05/15/12 19:21	10
1,1-Dichloroethene	1.9	U	10	1.9	ug/L			05/15/12 19:21	10
trans-1,2-Dichloroethene	0.90	U	10	0.90	ug/L			05/15/12 19:21	10
Methyl tert-butyl ether	66		10	1.2	ug/L			05/15/12 19:21	10
Acetone	9.9	U	50	9.9	ug/L			05/15/12 19:21	10
lodomethane	20	U	20	20	ug/L			05/15/12 19:21	10
Carbon disulfide	2.4	U	20	2.4	ug/L			05/15/12 19:21	10
Methylene Chloride	1.5	U	50	1.5	ug/L			05/15/12 19:21	10
cis-1,2-Dichloroethene	0.60	U	10	0.60	ug/L			05/15/12 19:21	10
2-Butanone (MEK)	7.6	U	20	7.6	ug/L			05/15/12 19:21	10
Carbon tetrachloride	1.5	U	10	1.5	ug/L			05/15/12 19:21	10
1,2-Dichloroethane	1.4	U	10					05/15/12 19:21	10
Trichloroethene	1.8	U	10		ug/L			05/15/12 19:21	10
1,1,1-Trichloroethane	1.5	U	10		ug/L			05/15/12 19:21	10
1,1-Dichloroethane	1.1	U	10	1.1	ug/L			05/15/12 19:21	10
1,2-Dichloropropane	6.4	J	10		ug/L			05/15/12 19:21	10
2,2-Dichloropropane	1.3		10		ug/L			05/15/12 19:21	10
Dibromomethane	5.2	U	10		ug/L			05/15/12 19:21	10
Chloroform	7.5		10		ug/L			05/15/12 19:21	10
Bromodichloromethane	1.6		10		ug/L			05/15/12 19:21	10
1,1-Dichloropropene	2.1		10		ug/L			05/15/12 19:21	10
cis-1,3-Dichloropropene	1.8	U	10		ug/L			05/15/12 19:21	10
4-Methyl-2-pentanone (MIBK)	4.5		20		ug/L			05/15/12 19:21	10
Toluene	66	_	10		ug/L			05/15/12 19:21	10
trans-1,3-Dichloropropene	2.1	U	10		ug/L			05/15/12 19:21	10
1,1,2-Trichloroethane	2.8		10		ug/L			05/15/12 19:21	10
Tetrachloroethene	1.3		10		ug/L			05/15/12 19:21	10
1,3-Dichloropropane	2.2		10		ug/L			05/15/12 19:21	10
2-Hexanone	3.5		20		ug/L			05/15/12 19:21	10
Dibromochloromethane	1.5		10		ug/L			05/15/12 19:21	10
1,2-Dibromoethane	1.8		10		ug/L			05/15/12 19:21	10
Chlorobenzene	1.2		10		ug/L			05/15/12 19:21	10
1,1,1,2-Tetrachloroethane	1.8		10		ug/L			05/15/12 19:21	10
Xylenes, Total	2100		10		ug/L			05/15/12 19:21	10
Styrene	8.0		10		ug/L			05/15/12 19:21	10
Bromoform	1.9		10		ug/L			05/15/12 19:21	10
Isopropylbenzene	22		10		ug/L			05/15/12 19:21	10
Bromobenzene	1.9		10		ug/L			05/15/12 19:21	10
1,2,3-Trichloropropane	2.9		10		ug/L			05/15/12 19:21	10
1,1,2,2-Tetrachloroethane	2.9		10		ug/L			05/15/12 19:21	10
N-Propylbenzene	36		10		ug/L ug/L			05/15/12 19:21	10
2-Chlorotoluene	1.3		10		ug/L ug/L			05/15/12 19:21	10
4-Chlorotoluene	1.4		10		ug/L			05/15/12 19:21	10
			10		ug/L ug/L			05/15/12 19:21	10
1,3,5-Trimethylbenzene	110								
tert-Butylbenzene 4-Isopropyltoluene	47 2.6		10 10		ug/L ug/L			05/15/12 19:21 05/15/12 19:21	10 10

Client: Pastor, Behling & Wheeler LLC

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Project/Site: R&H Oil

Lab Sample ID: 600-54839-5

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-15 Date Collected: 05/10/12 14:20 Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	330		10	1.4	ug/L			05/15/12 19:21	10
sec-Butylbenzene	2.2	J	10	1.2	ug/L			05/15/12 19:21	10
1,3-Dichlorobenzene	1.3	U	10	1.3	ug/L			05/15/12 19:21	10
1,4-Dichlorobenzene	1.1	U	10	1.1	ug/L			05/15/12 19:21	10
1,2-Dichlorobenzene	1.0	U	10	1.0	ug/L			05/15/12 19:21	10
n-Butylbenzene	7.6	J	10	1.6	ug/L			05/15/12 19:21	10
1,2-Dibromo-3-Chloropropane	8.1	U	10	8.1	ug/L			05/15/12 19:21	10
1,2,4-Trichlorobenzene	3.1	U	10	3.1	ug/L			05/15/12 19:21	10
Hexachlorobutadiene	1.7	U	10	1.7	ug/L			05/15/12 19:21	10
Naphthalene	130		10	3.2	ug/L			05/15/12 19:21	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98	×	67 - 139			-		05/15/12 19:21	10
Dibromofluoromethane	78		62 - 130					05/15/12 19:21	10
Toluene-d8 (Surr)	87		70 - 130					05/15/12 19:21	10
1,2-Dichloroethane-d4 (Surr)	80		50 - 134					05/15/12 19:21	10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	14000	07	1000	80	ug/L			05/16/12 19:35	1000
Ethylbenzene	510		100	11	ug/L			05/15/12 19:50	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98	<u> </u>	67 - 139			-		05/15/12 19:50	100
4-Bromofluorobenzene	100		67 - 139					05/16/12 19:35	1000
Dibromofluoromethane	75		62 - 130					05/15/12 19:50	100
Dibromofluoromethane	78		62 - 130					05/16/12 19:35	1000
Toluene-d8 (Surr)	87		70 - 130					05/15/12 19:50	100
Toluene-d8 (Surr)	85		70 - 130					05/16/12 19:35	1000
1,2-Dichloroethane-d4 (Surr)	76		50 - 134					05/15/12 19:50	100
1,2-Dichloroethane-d4 (Surr)	78		50 - 134					05/16/12 19:35	1000

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
Phenol	73		15	0.39	ug/L		05/14/12 16:21	05/18/12 02:01	10
Bis(2-chloroethyl)ether	1.5	U	15	1.5	ug/L		05/14/12 16:21	05/18/12 02:01	10
2-Chlorophenol	1.3	U	20	1.3	ug/L		05/14/12 16:21	05/18/12 02:01	10
Benzyl alcohol	1.7	U	54	1.7	ug/L		05/14/12 16:21	05/18/12 02:01	10
Bis(2-chloroisopropyl) ether	3.9	U	15	3.9	ug/L		05/14/12 16:21	05/18/12 02:01	10
3 & 4 Methylphenol	5.9	J	9.9	2.0	ug/L		05/14/12 16:21	05/18/12 02:01	10
N-Nitrosodi-n-propylamine	0.99	U	25	0.99	ug/L		05/14/12 16:21	05/18/12 02:01	10
Hexachloroethane	0.99	U	20	0.99	ug/L		05/14/12 16:21	05/18/12 02:01	10
Nitrobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
Isophorone	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
2-Nitrophenol	2.2	U	9.9	2.2	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,4-Dimethylphenol	34		25	3.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
Bis(2-chloroethoxy)methane	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,4-Dichlorophenol	1.5	U	25	1.5	ug/L		05/14/12 16:21	05/18/12 02:01	10
4-Chloroaniline	2.1	U	9.9	2.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
4-Chloro-3-methylphenol	1.7	U	9.9	1.7	ug/L		05/14/12 16:21	05/18/12 02:01	10
2-Methylnaphthalene	33		15	0.69	ug/L		05/14/12 16:21	05/18/12 02:01	10

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-5

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-15 Date Collected: 05/10/12 14:20 Date Received: 05/11/12 10:10

Method: 8270C LL - Semivola	tile Organic Com	pounds by	GCMS - Low L	evels (Co	ntinued)				
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,4,6-Trichlorophenol	1.8	U	20	1.8	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,4,5-Trichlorophenol	2.5	U	20	2.5	ug/L		05/14/12 16:21	05/18/12 02:01	10
2-Chloronaphthalene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
2-Nitroaniline	1.9	U	25	1.9	ug/L		05/14/12 16:21	05/18/12 02:01	10
Dimethyl phthalate	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 02:01	10
Acenaphthylene	0.59	U	9.9	0.59	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,6-Dinitrotoluene	0.79	U	9.9	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
3-Nitroaniline	1.6	U	25	1.6	ug/L		05/14/12 16:21	05/18/12 02:01	10
Acenaphthene	0.79	U	9.9	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,4-Dinitrophenol	3.8	U	49	3.8	ug/L		05/14/12 16:21	05/18/12 02:01	10
4-Nitrophenol	5.5	U	25	5.5	ug/L		05/14/12 16:21	05/18/12 02:01	10
Dibenzofuran	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,4-Dinitrotoluene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 02:01	10
Diethyl phthalate	15	U	25	15	ug/L		05/14/12 16:21	05/18/12 02:01	10
4-Chlorophenyl phenyl ether	0.99	U	15	0.99	ug/L		05/14/12 16:21	05/18/12 02:01	10
Fluorene	0.69	U	15	0.69	ug/L		05/14/12 16:21	05/18/12 02:01	10
4-Nitroaniline	2.5	U	25	2.5	ug/L		05/14/12 16:21	05/18/12 02:01	10
4,6-Dinitro-2-methylphenol	8.2	U	25	8.2	ug/L		05/14/12 16:21	05/18/12 02:01	10
4-Bromophenyl phenyl ether	0.99	U	15	0.99	ug/L		05/14/12 16:21	05/18/12 02:01	10
Hexachlorobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
Pentachlorophenol	6.0	U	25	6.0	ug/L		05/14/12 16:21	05/18/12 02:01	10
Phenanthrene	0.59	U	15	0.59	ug/L		05/14/12 16:21	05/18/12 02:01	10
Anthracene	0.49	U	9.9	0.49	ug/L		05/14/12 16:21	05/18/12 02:01	10
Di-n-butyl phthalate	1.1	U	25	1.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
Fluoranthene	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 02:01	10
Pyrene	1.1	U	20	1.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
Butyl benzyl phthalate	1.2	U	25	1.2	ug/L		05/14/12 16:21	05/18/12 02:01	10
3,3'-Dichlorobenzidine	1.8	U	99	1.8	ug/L		05/14/12 16:21	05/18/12 02:01	10
Benzo[a]anthracene	0.79	U	20	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
Bis(2-ethylhexyl) phthalate	3.6	U	25	3.6	ug/L		05/14/12 16:21	05/18/12 02:01	10
Chrysene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
Di-n-octyl phthalate	1.6	U	49	1.6	ug/L		05/14/12 16:21	05/18/12 02:01	10
Benzo[b]fluoranthene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 02:01	10
Benzo[k]fluoranthene	0.89	U	20	0.89	ug/L		05/14/12 16:21	05/18/12 02:01	10
Benzo[a]pyrene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
Indeno[1,2,3-cd]pyrene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 02:01	10
Dibenz(a,h)anthracene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
Benzo[g,h,i]perylene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
Surrogate	%Recovery		Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	35		10 - 94				05/14/12 16:21	05/18/12 02:01	10
2,4,6-Tribromophenol	111		10 - 123				05/14/12 16:21	05/18/12 02:01	10
2-Fluorobiphenyl	96		43 - 116				05/14/12 16:21	05/18/12 02:01	10
2-Fluorophenol	48		10 - 100				05/14/12 16:21	05/18/12 02:01	10
Nitrobenzene-d5	100		35 _ 114				05/14/12 16:21	05/18/12 02:01	10
Terphenyl-d14	97		33 - 141				05/14/12 16:21	05/18/12 02:01	10
_									

Analyzed

05/16/12 05:05

Prepared

05/15/12 14:14

Dil Fac

MQL (Adj)

2.0

SDL Unit

0.82 mg/L

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte

C6-C12

Result Qualifier

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-15

Date Collected: 05/10/12 14:20

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-5

Matrix: Water

Date Received: 05/11/12 10:10

Method: TX 1005 - Texas - Total Per	troleum Hyd	lrocarbon (GC) (Continued))					
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C28	3.9	-	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 05:05	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 05:05	1
C6-C35	16		2.0	1.5	mg/L		05/15/12 14:14	05/16/12 05:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	102		70 - 130	05/15/12 14:14	05/16/12 05:05	1

Method: 6010B - Metals (IC	P)							
Analyte	Result Qu	ualifier MQL (A	dj) SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.24	0.0	0.0033	mg/L		05/11/12 15:31	05/16/12 18:51	1
Aluminum	0.037 J	0.	50 0.022	mg/L		05/11/12 15:31	05/16/12 18:51	1
Barium	0.47	0.0	20 0.0022	mg/L		05/11/12 15:31	05/16/12 18:51	1
Cobalt	0.0040 J	0.0	0.00063	mg/L		05/11/12 15:31	05/16/12 18:51	1
Chromium	0.0016 U	0.0	0.0016	mg/L		05/11/12 15:31	05/16/12 18:51	1
Copper	0.0030 JE	B 0.0	10 0.0015	mg/L		05/11/12 15:31	05/16/12 18:51	1
Manganese	0.63	0.0	10 0.00084	mg/L		05/11/12 15:31	05/16/12 18:51	1
Nickel	0.0094 J	0.0	10 0.0018	mg/L		05/11/12 15:31	05/16/12 18:51	1
Lead	0.0029 U	0.0	10 0.0029	mg/L		05/11/12 15:31	05/16/12 18:51	1
Selenium	0.0050 J	0.0	0.0042	mg/L		05/11/12 15:31	05/16/12 18:51	1
Thallium	0.0078 U	0.0	0.0078	mg/L		05/11/12 15:31	05/16/12 18:51	1
Vanadium	0.0032 J	0.0	10 0.0017	mg/L		05/11/12 15:31	05/17/12 12:00	1
Zinc	0.0048 JE	B 0.0	30 0.0022	mg/L		05/11/12 15:31	05/16/12 18:51	1

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	Ū	0.00020	0.000026	ma/L		05/14/12 09:05	05/14/12 16:00	1

Client Sample ID: MW-12 Lab Sample ID: 600-54839-6 Date Collected: 05/10/12 15:20 **Matrix: Water**

Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	6.0	U *	50	6.0	ug/L			05/14/12 19:02	50
Chloromethane	9.0	U *	100	9.0	ug/L			05/14/12 19:02	50
Vinyl chloride	5.5	U	100	5.5	ug/L			05/14/12 19:02	50
Bromomethane	13	U	100	13	ug/L			05/14/12 19:02	50
Chloroethane	4.0	U	100	4.0	ug/L			05/14/12 19:02	50
Trichlorofluoromethane	4.0	U	50	4.0	ug/L			05/14/12 19:02	50
1,1-Dichloroethene	9.5	U	50	9.5	ug/L			05/14/12 19:02	50
trans-1,2-Dichloroethene	4.5	U	50	4.5	ug/L			05/14/12 19:02	50
Methyl tert-butyl ether	6.0	U	50	6.0	ug/L			05/14/12 19:02	50
Acetone	50	U	250	50	ug/L			05/14/12 19:02	50
lodomethane	100	U	100	100	ug/L			05/14/12 19:02	50
Carbon disulfide	12	U	100	12	ug/L			05/14/12 19:02	50
Methylene Chloride	7.5	U	250	7.5	ug/L			05/14/12 19:02	50
cis-1,2-Dichloroethene	3.0	U	50	3.0	ug/L			05/14/12 19:02	50
2-Butanone (MEK)	38	U	100	38	ug/L			05/14/12 19:02	50
Carbon tetrachloride	7.5	U	50	7.5	ug/L			05/14/12 19:02	50
1,2-Dichloroethane	7.0	U	50	7.0	ug/L			05/14/12 19:02	50
Trichloroethene	9.0	U	50	9.0	ug/L			05/14/12 19:02	50
1,1,1-Trichloroethane	7.5	U	50	7.5	ug/L			05/14/12 19:02	50

TestAmerica Houston 5/30/2012

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-6

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-12

Date Collected: 05/10/12 15:20 Date Received: 05/11/12 10:10

1,2-Dichloroethane-d4 (Surr)

1,1-Dichloroethane 1,2-Dichloropropane 2,2-Dichloropropane Dibromomethane Chloroform Bromodichloromethane 1,1-Dichloropropene cis-1,3-Dichloropropene 4-Methyl-2-pentanone (MIBK) Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane 1,2-Dibromoethane	5.5 23 6.5 26 20 8.0 11 9.0 23 100 11 14 6.5 11 18 7.5	J U U U U U U U	50 50 50 50 50 50 50 50 50 50 50 50	8.0 6.5 26 6.5 8.0 11 9.0 23 7.5	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L			05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02	
1,2-Dichloropropane 2,2-Dichloropropane Dibromomethane Chloroform Bromodichloromethane 1,1-Dichloropropene cis-1,3-Dichloropropene 4-Methyl-2-pentanone (MIBK) Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	6.5 26 20 8.0 11 9.0 23 100 11 14 6.5 11	U U U U U U U U	50 50 50 50 50 50 100 50 50	8.0 6.5 26 6.5 8.0 11 9.0 23 7.5	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L			05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02	5 5 5 5 5 5
2,2-Dichloropropane Dibromomethane Chloroform Bromodichloromethane 1,1-Dichloropropene cis-1,3-Dichloropropene 4-Methyl-2-pentanone (MIBK) Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	6.5 26 20 8.0 11 9.0 23 100 11 14 6.5 11	U U U U U U U U	50 50 50 50 50 100 50 50	26 6.5 8.0 11 9.0 23 7.5	ug/L ug/L ug/L ug/L ug/L ug/L ug/L			05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02	5 5 5 5 5
Dibromomethane Chloroform Bromodichloromethane 1,1-Dichloropropene cis-1,3-Dichloropropene 4-Methyl-2-pentanone (MIBK) Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	20 8.0 11 9.0 23 100 11 14 6.5 11	J U U U U	50 50 50 50 100 50 50	26 6.5 8.0 11 9.0 23 7.5	ug/L ug/L ug/L ug/L ug/L ug/L ug/L			05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02	5 5 5 5
Bromodichloromethane 1,1-Dichloropropene cis-1,3-Dichloropropene 4-Methyl-2-pentanone (MIBK) Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	8.0 11 9.0 23 100 11 14 6.5 11	U U U U U U	50 50 50 100 50 50	6.5 8.0 11 9.0 23 7.5	ug/L ug/L ug/L ug/L ug/L ug/L			05/14/12 19:02 05/14/12 19:02 05/14/12 19:02 05/14/12 19:02	5 5 5
1,1-Dichloropropene cis-1,3-Dichloropropene 4-Methyl-2-pentanone (MIBK) Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	8.0 11 9.0 23 100 11 14 6.5 11	U U U U U U	50 50 100 50 50	8.0 11 9.0 23 7.5 11	ug/L ug/L ug/L ug/L ug/L			05/14/12 19:02 05/14/12 19:02 05/14/12 19:02	5 5 5
1,1-Dichloropropene cis-1,3-Dichloropropene 4-Methyl-2-pentanone (MIBK) Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	9.0 23 100 11 14 6.5 11	U U U U	50 50 100 50 50	11 9.0 23 7.5 11	ug/L ug/L ug/L ug/L			05/14/12 19:02 05/14/12 19:02 05/14/12 19:02	5 5
cis-1,3-Dichloropropene 4-Methyl-2-pentanone (MIBK) Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	23 100 11 14 6.5 11 18	U U U U	50 100 50 50 50	9.0 23 7.5 11	ug/L ug/L ug/L			05/14/12 19:02 05/14/12 19:02	5
4-Methyl-2-pentanone (MIBK) Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	23 100 11 14 6.5 11 18	U U U U	100 50 50 50	23 7.5 11	ug/L ug/L			05/14/12 19:02	5
Toluene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	11 14 6.5 11 18	U U	50 50	7.5 11	ug/L			05/14/12 19:02	50
trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	11 14 6.5 11 18	U U	50	11					
1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	14 6.5 11 18	U U	50		- 3			05/14/12 19:02	50
Tetrachloroethene 1,3-Dichloropropane 2-Hexanone Dibromochloromethane	11 18				ug/L			05/14/12 19:02	5
1,3-Dichloropropane 2-Hexanone Dibromochloromethane	11 18		50		ug/L			05/14/12 19:02	50
2-Hexanone Dibromochloromethane		U	50		ug/L			05/14/12 19:02	50
Dibromochloromethane			100		ug/L			05/14/12 19:02	5
	()		50		ug/L			05/14/12 19:02	5
,	9.0		50		ug/L			05/14/12 19:02	5
Chlorobenzene	6.0		50		ug/L			05/14/12 19:02	5
1,1,1,2-Tetrachloroethane	9.0		50		ug/L			05/14/12 19:02	5
Ethylbenzene	1700	Ü	50		ug/L			05/14/12 19:02	5
Xylenes, Total	8000		50		ug/L			05/14/12 19:02	5
Styrene	7.0	1	50		ug/L			05/14/12 19:02	5
Bromoform	9.5		50		ug/L			05/14/12 19:02	5
Isopropylbenzene	76	20/20/21/4-12/20	50		ug/L			05/14/12 19:02	5(
Bromobenzene	9.5	П	50		ug/L			05/14/12 19:02	50
1,2,3-Trichloropropane	15		50		ug/L			05/14/12 19:02	5
1,1,2,2-Tetrachloroethane	11		50		ug/L			05/14/12 19:02	5
	120	U	50		-			05/14/12 19:02	5
N-Propylbenzene 2-Chlorotoluene	6.5	П	50		ug/L ug/L			05/14/12 19:02	50
4-Chlorotoluene	7.0		50		ug/L			05/14/12 19:02	5
		U	50		-			05/14/12 19:02	50
1,3,5-Trimethylbenzene tert-Butylbenzene	400 4.0	П	50		ug/L ug/L			05/14/12 19:02	50
4-Isopropyltoluene	9.3	J	50 50		ug/L			05/14/12 19:02	50 50
1,2,4-Trimethylbenzene	1200 6.0		50		ug/L			05/14/12 19:02	5
sec-Butylbenzene			50		ug/L			05/14/12 19:02	
1,3-Dichlorobenzene	6.5		50 50		ug/L			05/14/12 19:02	50
1,4-Dichlorobenzene	5.5		50		ug/L			05/14/12 19:02	50
1,2-Dichlorobenzene	5.0		50		ug/L			05/14/12 19:02	5
n-Butylbenzene	25		50		ug/L			05/14/12 19:02	5
1,2-Dibromo-3-Chloropropane		U *	50		ug/L			05/14/12 19:02	5
1,2,4-Trichlorobenzene	16		50		ug/L			05/14/12 19:02	50
Hexachlorobutadiene	8.5	U	50		ug/L			05/14/12 19:02	50
Naphthalene	510		50	16	ug/L			05/14/12 19:02	5
Surrogate	%Recovery	Qualifier	Limits			=	Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene	95		67 - 139					05/14/12 19:02	5
Dibromofluoromethane	81		62 - 130					05/14/12 19:02	5
Toluene-d8 (Surr)	87		70 - 130					05/14/12 19:02	5

05/14/12 19:02

50 - 134

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-6

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-12

Date Collected: 05/10/12 15:20 Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	26000		1000	80	ug/L			05/15/12 16:58	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95	-	67 - 139			-		05/15/12 16:58	1000
Dibromofluoromethane	82		62 - 130					05/15/12 16:58	1000
Toluene-d8 (Surr)	85		70 - 130					05/15/12 16:58	1000
1,2-Dichloroethane-d4 (Surr)	81		50 - 134					05/15/12 16:58	1000

1,2-Dichloroethane-d4 (Surr)	81		50 - 134					05/15/12 16:58	100
 Method: 8270C LL - Semivolati	le Organic Comr	oounds by G	CMS - Low Lev	vels					
Analyte	•	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fa
Aniline	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	•
Phenol	24		15	0.39	ug/L		05/14/12 16:21	05/18/12 02:27	
Bis(2-chloroethyl)ether	1.5	U	15	1.5	ug/L		05/14/12 16:21	05/18/12 02:27	
2-Chlorophenol	1.3	U	20	1.3	ug/L		05/14/12 16:21	05/18/12 02:27	
Benzyl alcohol	1.7	U	54	1.7	ug/L		05/14/12 16:21	05/18/12 02:27	
Bis(2-chloroisopropyl) ether	3.9	U	15	3.9	ug/L		05/14/12 16:21	05/18/12 02:27	
3 & 4 Methylphenol	47		9.9	2.0	ug/L		05/14/12 16:21	05/18/12 02:27	
N-Nitrosodi-n-propylamine	0.99	U	25	0.99	ug/L		05/14/12 16:21	05/18/12 02:27	
Hexachloroethane	0.99	U	20	0.99	ug/L		05/14/12 16:21	05/18/12 02:27	
Nitrobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 02:27	
Isophorone	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 02:27	
2-Nitrophenol	2.2	U	9.9	2.2	ug/L		05/14/12 16:21	05/18/12 02:27	
2,4-Dimethylphenol	60		25		ug/L		05/14/12 16:21	05/18/12 02:27	
Bis(2-chloroethoxy)methane	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 02:27	
2,4-Dichlorophenol	1.5	U	25		ug/L		05/14/12 16:21	05/18/12 02:27	
4-Chloroaniline	2.1		9.9		ug/L		05/14/12 16:21	05/18/12 02:27	
4-Chloro-3-methylphenol	1.7		9.9		ug/L		05/14/12 16:21	05/18/12 02:27	
2-Methylnaphthalene	76		15		ug/L		05/14/12 16:21	05/18/12 02:27	
Hexachlorocyclopentadiene	1.3	U	15		ug/L		05/14/12 16:21	05/18/12 02:27	
2,4,6-Trichlorophenol	1.8	U	20		ug/L		05/14/12 16:21	05/18/12 02:27	
2,4,5-Trichlorophenol	2.5	U	20		ug/L		05/14/12 16:21	05/18/12 02:27	
2-Chloronaphthalene	0.79	U	15		ug/L		05/14/12 16:21	05/18/12 02:27	
2-Nitroaniline	1.9	U	25		ug/L		05/14/12 16:21	05/18/12 02:27	
Dimethyl phthalate	0.69	U	25		ug/L		05/14/12 16:21	05/18/12 02:27	
Acenaphthylene	0.59		9.9		ug/L		05/14/12 16:21	05/18/12 02:27	
2,6-Dinitrotoluene	0.79		9.9		ug/L		05/14/12 16:21	05/18/12 02:27	
3-Nitroaniline	1.6		25		ug/L		05/14/12 16:21	05/18/12 02:27	
Acenaphthene	0.79		9.9	STREET	ug/L		05/14/12 16:21	05/18/12 02:27	
2,4-Dinitrophenol	3.8		49		ug/L		05/14/12 16:21	05/18/12 02:27	
4-Nitrophenol	5.5		25		ug/L		05/14/12 16:21	05/18/12 02:27	
Dibenzofuran	0.79		15		ug/L		05/14/12 16:21	05/18/12 02:27	
2,4-Dinitrotoluene	1.3		15		ug/L		05/14/12 16:21	05/18/12 02:27	
Diethyl phthalate	15		25		ug/L		05/14/12 16:21	05/18/12 02:27	
4-Chlorophenyl phenyl ether	0.99		15		ug/L		05/14/12 16:21	05/18/12 02:27	
Fluorene	0.69		15		ug/L		05/14/12 16:21	05/18/12 02:27	
4-Nitroaniline	2.5		25		ug/L		05/14/12 16:21	05/18/12 02:27	
4,6-Dinitro-2-methylphenol	8.2		25		ug/L		05/14/12 16:21	05/18/12 02:27	
1-Bromophenyl phenyl ether	0.99		15		ug/L		05/14/12 16:21	05/18/12 02:27	
Hexachlorobenzene	1.1		15		ug/L		05/14/12 16:21	05/18/12 02:27	
Pentachlorophenol	6.0		25		ug/L		05/14/12 16:21	05/18/12 02:27	
Phenanthrene	0.59		25 15		ug/L ug/L		05/14/12 16:21	05/18/12 02:27	

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Analyte

C6-C12 >C12-C28

>C28-C35

Lab Sample ID: 600-54839-6

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-12 Date Collected: 05/10/12 15:20 Matrix: Water Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.49	U	9.9	0.49	ug/L		05/14/12 16:21	05/18/12 02:27	10
Di-n-butyl phthalate	1.1	U	25	1.1	ug/L		05/14/12 16:21	05/18/12 02:27	10
Fluoranthene	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 02:27	10
Pyrene	1.1	U	20	1.1	ug/L		05/14/12 16:21	05/18/12 02:27	10
Butyl benzyl phthalate	1.2	U	25	1.2	ug/L		05/14/12 16:21	05/18/12 02:27	10
3,3'-Dichlorobenzidine	1.8	U	99	1.8	ug/L		05/14/12 16:21	05/18/12 02:27	10
Benzo[a]anthracene	0.79	U	20	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
Bis(2-ethylhexyl) phthalate	3.6	U	25	3.6	ug/L		05/14/12 16:21	05/18/12 02:27	10
Chrysene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
Di-n-octyl phthalate	1.6	U	49	1.6	ug/L		05/14/12 16:21	05/18/12 02:27	10
Benzo[b]fluoranthene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 02:27	10
Benzo[k]fluoranthene	0.89	U	20	0.89	ug/L		05/14/12 16:21	05/18/12 02:27	10
Benzo[a]pyrene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
Indeno[1,2,3-cd]pyrene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 02:27	10
Dibenz(a,h)anthracene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
Benzo[g,h,i]perylene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	23		10 - 94				05/14/12 16:21	05/18/12 02:27	10
2,4,6-Tribromophenol	41		10 - 123				05/14/12 16:21	05/18/12 02:27	10
2-Fluorobiphenyl	67		43 - 116				05/14/12 16:21	05/18/12 02:27	10
2-Fluorophenol	36		10 - 100				05/14/12 16:21	05/18/12 02:27	10
Nitrobenzene-d5	91		35 - 114				05/14/12 16:21	05/18/12 02:27	10
Terphenyl-d14	62		33 - 141				05/14/12 16:21	05/18/12 02:27	1

C6-C35	17		2.0	1.5	mg/L		05/15/12 14:14	05/16/12 05:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	90		70 - 130				05/15/12 14:14	05/16/12 05:39	1
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.21		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:53	1
Aluminum	0.057	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:53	1
Barium	0.62		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:53	1
Cobalt	0.0037	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:53	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:53	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:53	1
Manganese	0.89		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:53	1
Nickel	0.0052	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:53	1
Lead	0.0038	J	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:53	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:53	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:53	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 18:53	1
Zinc	0.0046	JB	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:53	1

MQL (Adj)

2.0

2.0

2.0

Result Qualifier

17

0.94 U

0.94 U

SDL Unit

0.82 mg/L

0.94 mg/L

0.94 mg/L

D

Prepared

05/15/12 14:14

05/15/12 14:14

05/15/12 14:14

Analyzed

05/16/12 05:39

05/16/12 05:39

05/16/12 05:39

Dil Fac

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-6

Matrix: Water

Client Sample ID: MW-12

Date Collected: 05/10/12 15:20 Date Received: 05/11/12 10:10

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:02	1

Client Sample ID: MW-3 Lab Sample ID: 600-54839-7

Matrix: Water

Date Collected: 05/10/12 16:20 Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	24	U *	200	24	ug/L			05/14/12 20:56	200
Chloromethane	36	U *	400	36	ug/L			05/14/12 20:56	200
Vinyl chloride	22	U	400	22	ug/L			05/14/12 20:56	200
Bromomethane	50	U	400	50	ug/L			05/14/12 20:56	200
Chloroethane	16	U	400	16	ug/L			05/14/12 20:56	200
Trichlorofluoromethane	16	U	200	16	ug/L			05/14/12 20:56	200
1,1-Dichloroethene	38	U	200	38	ug/L			05/14/12 20:56	200
trans-1,2-Dichloroethene	18	U	200	18	ug/L			05/14/12 20:56	200
Methyl tert-butyl ether	24	U	200	24	ug/L			05/14/12 20:56	200
Acetone	200	U	1000	200	ug/L			05/14/12 20:56	200
lodomethane	400	U	400	400	ug/L			05/14/12 20:56	200
Carbon disulfide	48	U	400	48	ug/L			05/14/12 20:56	200
Methylene Chloride	30	U	1000	30	ug/L			05/14/12 20:56	200
cis-1,2-Dichloroethene	12	U	200	12	ug/L			05/14/12 20:56	200
2-Butanone (MEK)	150	U	400	150	ug/L			05/14/12 20:56	200
Carbon tetrachloride	30	U	200	30	ug/L			05/14/12 20:56	200
1,2-Dichloroethane	28	U	200	28	ug/L			05/14/12 20:56	200
Trichloroethene	36	U	200	36	ug/L			05/14/12 20:56	200
1,1,1-Trichloroethane	30	U	200	30	ug/L			05/14/12 20:56	200
1,1-Dichloroethane	22	U	200	22	ug/L			05/14/12 20:56	200
1,2-Dichloropropane	81	J	200	32	ug/L			05/14/12 20:56	200
2,2-Dichloropropane	26	U	200	26	ug/L			05/14/12 20:56	200
Dibromomethane	100	U	200	100	ug/L			05/14/12 20:56	200
Chloroform	43	J	200	26	ug/L			05/14/12 20:56	200
Bromodichloromethane	32	U	200	32	ug/L			05/14/12 20:56	200
1,1-Dichloropropene	42	U	200	42	ug/L			05/14/12 20:56	200
cis-1,3-Dichloropropene	36	U	200	36	ug/L			05/14/12 20:56	200
4-Methyl-2-pentanone (MIBK)	90	U	400	90	ug/L			05/14/12 20:56	200
Toluene	1400		200	30	ug/L			05/14/12 20:56	200
trans-1,3-Dichloropropene	42	U	200	42	ug/L			05/14/12 20:56	200
1,1,2-Trichloroethane	56	U	200	56	ug/L			05/14/12 20:56	200
Tetrachloroethene	26	U	200	26	ug/L			05/14/12 20:56	200
1,3-Dichloropropane	44	U	200	44	ug/L			05/14/12 20:56	200
2-Hexanone	70	U	400	70	ug/L			05/14/12 20:56	200
Dibromochloromethane	30	U	200	30	ug/L			05/14/12 20:56	200
1,2-Dibromoethane	36	U	200	36	ug/L			05/14/12 20:56	200
Chlorobenzene	24	U	200		ug/L			05/14/12 20:56	200
1,1,1,2-Tetrachloroethane	36	U	200		ug/L			05/14/12 20:56	200
Ethylbenzene	1500		200		ug/L			05/14/12 20:56	200
Xylenes, Total	15000		200		ug/L			05/14/12 20:56	200
Styrene	83	J	200		ug/L			05/14/12 20:56	200
Bromoform	38		200		ug/L			05/14/12 20:56	200
Isopropylbenzene	180		200		ug/L			05/14/12 20:56	200

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: MW-3

Date Collected: 05/10/12 16:20

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-7

TestAmerica Job ID: 600-54839-1

Matrix: Water

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	38	U	200	38	ug/L			05/14/12 20:56	200
1,2,3-Trichloropropane	58	U	200	58	ug/L			05/14/12 20:56	200
1,1,2,2-Tetrachloroethane	44	U	200	44	ug/L			05/14/12 20:56	200
N-Propylbenzene	260		200	30	ug/L			05/14/12 20:56	200
2-Chlorotoluene	26	U	200	26	ug/L			05/14/12 20:56	200
4-Chlorotoluene	28	U	200	28	ug/L			05/14/12 20:56	200
1,3,5-Trimethylbenzene	1500		200	20	ug/L			05/14/12 20:56	200
tert-Butylbenzene	16	U	200	16	ug/L			05/14/12 20:56	200
4-Isopropyltoluene	72	J	200	20	ug/L			05/14/12 20:56	200
1,2,4-Trimethylbenzene	2700		200	28	ug/L			05/14/12 20:56	200
sec-Butylbenzene	47	J	200	24	ug/L			05/14/12 20:56	200
1,3-Dichlorobenzene	26	U	200	26	ug/L			05/14/12 20:56	200
1,4-Dichlorobenzene	22	U	200	22	ug/L			05/14/12 20:56	200
1,2-Dichlorobenzene	20	U	200	20	ug/L			05/14/12 20:56	200
n-Butylbenzene	190	J	200	32	ug/L			05/14/12 20:56	200
1,2-Dibromo-3-Chloropropane	160	U *	200	160	ug/L			05/14/12 20:56	200
1,2,4-Trichlorobenzene	62	U	200	62	ug/L			05/14/12 20:56	200
Hexachlorobutadiene	34	U	200	34	ug/L			05/14/12 20:56	200
Naphthalene	820		200	64	ug/L			05/14/12 20:56	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94	8	67 - 139			-		05/14/12 20:56	200
Dibromofluoromethane	78		62 - 130					05/14/12 20:56	200
Toluene-d8 (Surr)	89		70 - 130					05/14/12 20:56	200
1,2-Dichloroethane-d4 (Surr)	76		50 ₋ 134					05/14/12 20:56	200

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	17000	X	2000	160	ug/L	3 -3 5		05/15/12 20:19	2000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100	8	67 - 139			-		05/15/12 20:19	2000
Dibromofluoromethane	81		62 - 130					05/15/12 20:19	2000
Toluene-d8 (Surr)	87		70 - 130					05/15/12 20:19	2000
1,2-Dichloroethane-d4 (Surr)	76		50 ₋ 134					05/15/12 20:19	2000

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.9	U	74	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Phenol	18	J	74	2.0	ug/L		05/14/12 16:21	05/18/12 02:54	50
Bis(2-chloroethyl)ether	7.4	U	74	7.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
2-Chlorophenol	6.4	U	99	6.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Benzyl alcohol	8.4	U	270	8.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Bis(2-chloroisopropyl) ether	20	U	74	20	ug/L		05/14/12 16:21	05/18/12 02:54	50
3 & 4 Methylphenol	35	J	49	9.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
N-Nitrosodi-n-propylamine	4.9	U	120	4.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Hexachloroethane	4.9	U	99	4.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Nitrobenzene	5.4	U	74	5.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Isophorone	5.4	U	74	5.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
2-Nitrophenol	11	U	49	11	ug/L		05/14/12 16:21	05/18/12 02:54	50
2,4-Dimethylphenol	15	U	120	15	ug/L		05/14/12 16:21	05/18/12 02:54	50
Bis(2-chloroethoxy)methane	6.4	U	74	6.4	ug/L		05/14/12 16:21	05/18/12 02:54	50

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-7

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-3

Date Collected: 05/10/12 16:20 Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil l
2,4-Dichlorophenol	7.4		120		ug/L		05/14/12 16:21	05/18/12 02:54	8
4-Chloroaniline	10		49		ug/L		05/14/12 16:21	05/18/12 02:54	
4-Chloro-3-methylphenol	8.4		49		ug/L		05/14/12 16:21	05/18/12 02:54	
2-Methylnaphthalene	900		74		ug/L		05/14/12 16:21	05/18/12 02:54	
Hexachlorocyclopentadiene	6.4	U	74		ug/L		05/14/12 16:21	05/18/12 02:54	
2,4,6-Trichlorophenol	8.9		99		ug/L		05/14/12 16:21	05/18/12 02:54	
2,4,5-Trichlorophenol	12		99		ug/L		05/14/12 16:21	05/18/12 02:54	
2-Chloronaphthalene	3.9		74		ug/L		05/14/12 16:21	05/18/12 02:54	
2-Nitroaniline	9.4		120		ug/L		05/14/12 16:21	05/18/12 02:54	
Dimethyl phthalate	3.4		120		ug/L		05/14/12 16:21	05/18/12 02:54	
	3.4		49				05/14/12 16:21	05/18/12 02:54	
Acenaphthylene	3.9		49		ug/L				
2,6-Dinitrotoluene					ug/L		05/14/12 16:21	05/18/12 02:54	
3-Nitroaniline	7.9		120		ug/L		05/14/12 16:21	05/18/12 02:54	
Acenaphthene	3.9		49		ug/L		05/14/12 16:21	05/18/12 02:54	
2,4-Dinitrophenol	19		250		ug/L 		05/14/12 16:21	05/18/12 02:54	
I-Nitrophenol	28		120		ug/L		05/14/12 16:21	05/18/12 02:54	
Dibenzofuran	3.9		74		ug/L		05/14/12 16:21	05/18/12 02:54	
2,4-Dinitrotoluene	6.4		74		ug/L		05/14/12 16:21	05/18/12 02:54	
Diethyl phthalate	74		120		ug/L		05/14/12 16:21	05/18/12 02:54	
I-Chlorophenyl phenyl ether	4.9	U	74	4.9	ug/L		05/14/12 16:21	05/18/12 02:54	
Fluorene	3.4	U	74	3.4	ug/L		05/14/12 16:21	05/18/12 02:54	
-Nitroaniline	12	U	120	12	ug/L		05/14/12 16:21	05/18/12 02:54	
,6-Dinitro-2-methylphenol	41	U	120	41	ug/L		05/14/12 16:21	05/18/12 02:54	
-Bromophenyl phenyl ether	4.9	U	74	4.9	ug/L		05/14/12 16:21	05/18/12 02:54	
lexachlorobenzene	5.4	U	74	5.4	ug/L		05/14/12 16:21	05/18/12 02:54	
Pentachlorophenol	30	U	120	30	ug/L		05/14/12 16:21	05/18/12 02:54	
Phenanthrene	3.0	U	74	3.0	ug/L		05/14/12 16:21	05/18/12 02:54	
anthracene	2.5	U	49	2.5	ug/L		05/14/12 16:21	05/18/12 02:54	
Di-n-butyl phthalate	5.4	U	120	5.4	ug/L		05/14/12 16:21	05/18/12 02:54	
Fluoranthene	3.4	U	120	3.4	ug/L		05/14/12 16:21	05/18/12 02:54	
Pyrene	5.4	U	99	5.4	ug/L		05/14/12 16:21	05/18/12 02:54	
Butyl benzyl phthalate	5.9	U	120	5.9	ug/L		05/14/12 16:21	05/18/12 02:54	
3,3'-Dichlorobenzidine	8.9	U	490	8.9	ug/L		05/14/12 16:21	05/18/12 02:54	
Benzo[a]anthracene	3.9	U	99	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	
Bis(2-ethylhexyl) phthalate	18	U	120		ug/L		05/14/12 16:21	05/18/12 02:54	
Chrysene	3.9		74	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	
Di-n-octyl phthalate	7.9		250		ug/L		05/14/12 16:21	05/18/12 02:54	
Benzo[b]fluoranthene	3.4		99		ug/L		05/14/12 16:21	05/18/12 02:54	
Benzo[k]fluoranthene	4.4		99		ug/L		05/14/12 16:21	05/18/12 02:54	
Benzo[a]pyrene	3.9		74		ug/L		05/14/12 16:21	05/18/12 02:54	
ndeno[1,2,3-cd]pyrene	3.4		99		ug/L		05/14/12 16:21	05/18/12 02:54	
Dibenz(a,h)anthracene	3.9		120		ug/L		05/14/12 16:21	05/18/12 02:54	
Benzo[g,h,i]perylene	3.9		120		ug/L		05/14/12 16:21	05/18/12 02:54	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Di
Phenol-d6		X	10 - 94				05/14/12 16:21	05/18/12 02:54	×
2,4,6-Tribromophenol		X	10 - 123				05/14/12 16:21	05/18/12 02:54	
2-Fluorobiphenyl		X	43 - 116				05/14/12 16:21	05/18/12 02:54	
2-Fluorophenol		X	10 - 100				05/14/12 16:21	05/18/12 02:54	
Nitrobenzene-d5		X	35 ₋ 114				05/14/12 16:21	05/18/12 02:54	
Terphenyl-d14		X	33 - 141				05/14/12 16:21	05/18/12 02:54	

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: MW-3

Date Collected: 05/10/12 16:20

Lab Sample ID: 600-54839-7

TestAmerica Job ID: 600-54839-1

Matrix: Water

Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	280	-	9.7	4.0	mg/L		05/15/12 14:14	05/16/12 13:07	5
>C12-C28	160		9.7	4.7	mg/L		05/15/12 14:14	05/16/12 13:07	5
>C28-C35	21		9.7	4.7	mg/L		05/15/12 14:14	05/16/12 13:07	5
C6-C35	460		9.7	7.6	mg/L		05/15/12 14:14	05/16/12 13:07	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	168	X	70 - 130	05/15/12 14:14	05/16/12 13:07	5

Method: 6010B - Metals (In Analyte	Result Q	ualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.095		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:03	1
Aluminum	0.066 J		0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:03	1
Barium	0.44		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:03	1
Cobalt	0.0025 J		0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:03	1
Chromium	0.0018 J		0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:03	1
Copper	0.0081 J	В	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:03	1
Manganese	1.0		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:03	1
Nickel	0.0047 J		0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:03	1
Lead	0.033		0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:03	1
Selenium	0.0042 U		0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:03	1
Thallium	0.0078 U	l	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:03	1
Vanadium	0.0068 J		0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:03	1
Zinc	0.0091 J	В	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:03	1

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:03	1

Client Sample ID: MW-2 Lab Sample ID: 600-54839-8 **Matrix: Water** Date Collected: 05/10/12 17:15

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.60	U *	5.0	0.60	ug/L			05/15/12 14:36	5
Chloromethane	0.90	U	10	0.90	ug/L			05/15/12 14:36	5
Vinyl chloride	0.55	U	10	0.55	ug/L			05/15/12 14:36	5
Bromomethane	1.3	U	10	1.3	ug/L			05/15/12 14:36	5
Chloroethane	0.40	U	10	0.40	ug/L			05/15/12 14:36	5
Trichlorofluoromethane	0.40	U	5.0	0.40	ug/L			05/15/12 14:36	5
1,1-Dichloroethene	0.95	U	5.0	0.95	ug/L			05/15/12 14:36	5
trans-1,2-Dichloroethene	0.45	U	5.0	0.45	ug/L			05/15/12 14:36	5
Methyl tert-butyl ether	1.9	J	5.0	0.60	ug/L			05/15/12 14:36	5
Acetone	5.0	U	25	5.0	ug/L			05/15/12 14:36	5
lodomethane	10	U	10	10	ug/L			05/15/12 14:36	5
Carbon disulfide	1.2	U	10	1.2	ug/L			05/15/12 14:36	5
Methylene Chloride	0.95	J	25	0.75	ug/L			05/15/12 14:36	5
cis-1,2-Dichloroethene	0.30	U	5.0	0.30	ug/L			05/15/12 14:36	5
2-Butanone (MEK)	3.8	U	10	3.8	ug/L			05/15/12 14:36	5
Carbon tetrachloride	0.75	U	5.0	0.75	ug/L			05/15/12 14:36	5
1,2-Dichloroethane	0.70	U	5.0	0.70	ug/L			05/15/12 14:36	5
Trichloroethene	0.90	U	5.0	0.90	ug/L			05/15/12 14:36	5

TestAmerica Houston 5/30/2012

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-8

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-2 Date Collected: 05/10/12 17:15

Date Received: 05/11/12 10:10

1,2-Dichloroethane-d4 (Surr)

Analyte	nic Compounds (Qualifier	MQL (Adj)	SDI	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.75	25	5.0		ug/L		i i opai cu	05/15/12 14:36	Dira
1,1-Dichloroethane	0.75		5.0		ug/L			05/15/12 14:36	25/25/25
1,2-Dichloropropane	2.4		5.0		ug/L			05/15/12 14:36	
2,2-Dichloropropane	0.65		5.0		ug/L			05/15/12 14:36	1205256
Dibromomethane	2.6		5.0		ug/L			05/15/12 14:36	į
Chloroform	0.65		5.0		ug/L			05/15/12 14:36	
Bromodichloromethane	0.80		5.0		ug/L			05/15/12 14:36	contract no
1,1-Dichloropropene	1.1		5.0		ug/L			05/15/12 14:36	į
cis-1,3-Dichloropropene	0.90		5.0		ug/L			05/15/12 14:36	į
4-Methyl-2-pentanone (MIBK)	2.3		10		ug/L			05/15/12 14:36	
Toluene	2.8		5.0		ug/L			05/15/12 14:36	į
trans-1,3-Dichloropropene	1.1		5.0		ug/L			05/15/12 14:36	į
1,1,2-Trichloroethane	1.4		5.0		ug/L			05/15/12 14:36	
Tetrachloroethene	0.65		5.0		ug/L			05/15/12 14:36	5
1,3-Dichloropropane	1.1		5.0		ug/L			05/15/12 14:36	Ę
2-Hexanone	1.8		10		ug/L			05/15/12 14:36	ezaezae
Dibromochloromethane	0.75		5.0		ug/L			05/15/12 14:36	
1,2-Dibromoethane	0.90		5.0		ug/L			05/15/12 14:36	į
Chlorobenzene	0.60		5.0		ug/L			05/15/12 14:36	-17-1017-10
1,1,1,2-Tetrachloroethane	0.90		5.0		ug/L			05/15/12 14:36	
Ethylbenzene	3.0		5.0		ug/L			05/15/12 14:36	
Xylenes, Total	2.0		5.0		ug/L			05/15/12 14:36	
Styrene	0.35		5.0		ug/L			05/15/12 14:36	į
Bromoform	0.95		5.0		ug/L			05/15/12 14:36	
Isopropylbenzene	29	20/20/23/22/20/20	5.0		ug/L			05/15/12 14:36	
Bromobenzene	0.95	U	5.0		ug/L			05/15/12 14:36	
1,2,3-Trichloropropane	1.5		5.0		ug/L			05/15/12 14:36	
1,1,2,2-Tetrachloroethane			5.0					05/15/12 14:36	
N-Propylbenzene	31		5.0		ug/L			05/15/12 14:36	
2-Chlorotoluene	0.65	U	5.0		ug/L			05/15/12 14:36	
4-Chlorotoluene	0.70	U	5.0		ug/L			05/15/12 14:36	
1,3,5-Trimethylbenzene	0.50		5.0		ug/L			05/15/12 14:36	
tert-Butylbenzene	0.89	J	5.0		ug/L			05/15/12 14:36	
4-Isopropyltoluene	2.3		5.0		ug/L			05/15/12 14:36	
1,2,4-Trimethylbenzene	0.70		5.0		ug/L			05/15/12 14:36	
sec-Butylbenzene	3.4		5.0	0.60				05/15/12 14:36	
1,3-Dichlorobenzene	0.65		5.0		ug/L			05/15/12 14:36	
1,4-Dichlorobenzene	0.55	U	5.0		ug/L			05/15/12 14:36	į
1,2-Dichlorobenzene	0.50		5.0		ug/L			05/15/12 14:36	į
n-Butylbenzene	3.2		5.0		ug/L			05/15/12 14:36	
1,2-Dibromo-3-Chloropropane	4.1		5.0		ug/L			05/15/12 14:36	į
1,2,4-Trichlorobenzene	1.6		5.0		ug/L			05/15/12 14:36	į
Hexachlorobutadiene	0.85		5.0		ug/L			05/15/12 14:36	
Naphthalene	2.2	J	5.0		ug/L			05/15/12 14:36	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene	100	-	67 - 139			-		05/15/12 14:36	
Dibromofluoromethane	83		62 - 130					05/15/12 14:36	;
Toluene-d8 (Surr)	84		70 - 130					05/15/12 14:36	

05/15/12 14:36

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-8

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-2

Date Collected: 05/10/12 17:15 Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	390	`	50	4.0	ug/L			05/15/12 07:14	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139			-		05/15/12 07:14	50
Dibromofluoromethane	80		62 - 130					05/15/12 07:14	50
Toluene-d8 (Surr)	88		70 - 130					05/15/12 07:14	50
1,2-Dichloroethane-d4 (Surr)	80		50 - 134					05/15/12 07:14	50

1,2-Dichloroethane-d4 (Surr)	80		50 - 134					05/15/12 07:14	5
Method: 8270C LL - Semivolatil	-	_							
Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fa
Aniline	0.79		15		ug/L		05/14/12 16:21	05/18/12 03:20	1
Phenol	0.39		15		ug/L		05/14/12 16:21	05/18/12 03:20	1
Bis(2-chloroethyl)ether	1.5	U	15	1.5	ug/L		05/14/12 16:21	05/18/12 03:20	1
2-Chlorophenol	1.3	U	20	1.3	ug/L		05/14/12 16:21	05/18/12 03:20	1
Benzyl alcohol	1.7	U	54	1.7	ug/L		05/14/12 16:21	05/18/12 03:20	1
Bis(2-chloroisopropyl) ether	3.9	U	15	3.9	ug/L		05/14/12 16:21	05/18/12 03:20	1
3 & 4 Methylphenol	2.0	U	9.9	2.0	ug/L		05/14/12 16:21	05/18/12 03:20	1
N-Nitrosodi-n-propylamine	0.99	U	25	0.99	ug/L		05/14/12 16:21	05/18/12 03:20	1
Hexachloroethane	0.99	U	20	0.99	ug/L		05/14/12 16:21	05/18/12 03:20	1
Nitrobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 03:20	1
Isophorone	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 03:20	1
2-Nitrophenol	2.2	U	9.9	2.2	ug/L		05/14/12 16:21	05/18/12 03:20	1
2,4-Dimethylphenol	3.1	U	25	3.1	ug/L		05/14/12 16:21	05/18/12 03:20	1
Bis(2-chloroethoxy)methane	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 03:20	1
2,4-Dichlorophenol	1.5	U	25		ug/L		05/14/12 16:21	05/18/12 03:20	1
4-Chloroaniline	2.1	U	9.9		ug/L		05/14/12 16:21	05/18/12 03:20	1
4-Chloro-3-methylphenol	1.7		9.9		ug/L		05/14/12 16:21	05/18/12 03:20	1
2-Methylnaphthalene	51		15		ug/L		05/14/12 16:21	05/18/12 03:20	1
Hexachlorocyclopentadiene	1.3	og palestike parko	15		ug/L		05/14/12 16:21	05/18/12 03:20	
2,4,6-Trichlorophenol	1.8		20		ug/L		05/14/12 16:21	05/18/12 03:20	1
2,4,5-Trichlorophenol	2.5		20		ug/L		05/14/12 16:21	05/18/12 03:20	1
2-Chloronaphthalene	0.79		15		ug/L		05/14/12 16:21	05/18/12 03:20	1
2-Nitroaniline	1.9		25	1.9	ug/L ug/L		05/14/12 16:21	05/18/12 03:20	1
Dimethyl phthalate	0.69		25		ug/L		05/14/12 16:21	05/18/12 03:20	1
	0.59		9.9		ug/L		05/14/12 16:21		
Acenaphthylene	0.59				•			05/18/12 03:20	
2,6-Dinitrotoluene			9.9		ug/L		05/14/12 16:21	05/18/12 03:20	1
3-Nitroaniline	1.6		25	52251252	ug/L		05/14/12 16:21	05/18/12 03:20	1
Acenaphthene	1.5		9.9		ug/L		05/14/12 16:21	05/18/12 03:20	1
2,4-Dinitrophenol	3.8		49		ug/L		05/14/12 16:21	05/18/12 03:20	1
4-Nitrophenol	5.5		25		ug/L		05/14/12 16:21	05/18/12 03:20	1
Dibenzofuran	0.79		15		ug/L		05/14/12 16:21	05/18/12 03:20	1
2,4-Dinitrotoluene	1.3		15		ug/L		05/14/12 16:21	05/18/12 03:20	1
Diethyl phthalate	15		25	15	ug/L		05/14/12 16:21	05/18/12 03:20	1
4-Chlorophenyl phenyl ether	0.99	U	15		ug/L		05/14/12 16:21	05/18/12 03:20	1
Fluorene	1.6	J	15	0.69	ug/L		05/14/12 16:21	05/18/12 03:20	1
4-Nitroaniline	2.5	U	25		ug/L		05/14/12 16:21	05/18/12 03:20	1
4,6-Dinitro-2-methylphenol	8.2	U	25		ug/L		05/14/12 16:21	05/18/12 03:20	1
4-Bromophenyl phenyl ether	0.99	U	15	0.99	ug/L		05/14/12 16:21	05/18/12 03:20	1
Hexachlorobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 03:20	1
Pentachlorophenol	6.0	U	25	6.0	ug/L		05/14/12 16:21	05/18/12 03:20	1
Phenanthrene	0.59	U	15	0.59	ug/L		05/14/12 16:21	05/18/12 03:20	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Nitrobenzene-d5

Terphenyl-d14

Client Sample ID: MW-2

Date Collected: 05/10/12 17:15

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-8

05/14/12 16:21

05/14/12 16:21

05/18/12 03:20

05/18/12 03:20

TestAmerica Job ID: 600-54839-1

Matrix: Water

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.49	U	9.9	0.49	ug/L		05/14/12 16:21	05/18/12 03:20	10
Di-n-butyl phthalate	1.1	U	25	1.1	ug/L		05/14/12 16:21	05/18/12 03:20	10
Fluoranthene	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 03:20	10
Pyrene	1.1	U	20	1.1	ug/L		05/14/12 16:21	05/18/12 03:20	10
Butyl benzyl phthalate	1.2	U	25	1.2	ug/L		05/14/12 16:21	05/18/12 03:20	10
3,3'-Dichlorobenzidine	1.8	U	99	1.8	ug/L		05/14/12 16:21	05/18/12 03:20	10
Benzo[a]anthracene	0.79	U	20	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
Bis(2-ethylhexyl) phthalate	3.6	U	25	3.6	ug/L		05/14/12 16:21	05/18/12 03:20	10
Chrysene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
Di-n-octyl phthalate	1.6	U	49	1.6	ug/L		05/14/12 16:21	05/18/12 03:20	10
Benzo[b]fluoranthene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 03:20	10
Benzo[k]fluoranthene	0.89	U	20	0.89	ug/L		05/14/12 16:21	05/18/12 03:20	10
Benzo[a]pyrene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
Indeno[1,2,3-cd]pyrene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 03:20	10
Dibenz(a,h)anthracene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
Benzo[g,h,i]perylene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	27	*	10 - 94				05/14/12 16:21	05/18/12 03:20	10
2,4,6-Tribromophenol	62		10 - 123				05/14/12 16:21	05/18/12 03:20	10
2-Fluorobiphenyl	87		43 - 116				05/14/12 16:21	05/18/12 03:20	10
2-Fluorophenol	39		10 - 100				05/14/12 16:21	05/18/12 03:20	10

Method: TX 1005 - Texas - Total F	etroleum Hyd	lrocarbon (GC)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.81	U	2.0	0.81	mg/L		05/15/12 14:14	05/16/12 06:48	1
>C12-C28	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 06:48	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 06:48	1
C6-C35	1.5	U	2.0	1.5	mg/L		05/15/12 14:14	05/16/12 06:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	97		70 - 130				05/15/12 14:14	05/16/12 06:48	1

35 - 114

33 - 141

90

Method: 6010B - Metals (ICI Analyte	•	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.38		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:05	1
Aluminum	0.077	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:05	1
Barium	0.18		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:05	1
Cobalt	0.0010	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:05	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:05	1
Copper	0.0015	JB	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:05	1
Manganese	0.36		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:05	1
Nickel	0.0033	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:05	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:05	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:05	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:05	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 19:05	1
Zinc	0.0048	JB	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:05	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-8

Matrix: Water

Client Sample ID: MW-2

Date Collected: 05/10/12 17:15 Date Received: 05/11/12 10:10

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:05	1

Client Sample ID: MW-4 Lab Sample ID: 600-54839-9

Date Collected: 05/09/12 11:00 Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organalyte		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.60	U *	5.0	0.60	ug/L			05/16/12 10:09	5
Chloromethane	0.90	U	10	0.90	ug/L			05/16/12 10:09	5
Vinyl chloride	0.55	U	10		ug/L			05/16/12 10:09	5
Bromomethane	1.3	U	10	1.3	ug/L			05/16/12 10:09	5
Chloroethane	0.40	U	10	0.40	_			05/16/12 10:09	5
Trichlorofluoromethane	0.40	U	5.0	0.40	ug/L			05/16/12 10:09	5
1,1-Dichloroethene	0.95	U	5.0	0.95	ug/L			05/16/12 10:09	5
trans-1,2-Dichloroethene	0.45	U	5.0	0.45				05/16/12 10:09	5
Methyl tert-butyl ether	0.60	U	5.0	0.60	ug/L			05/16/12 10:09	5
Acetone	5.0	Ü	25	5.0	ug/L			05/16/12 10:09	5
lodomethane	10	U	10		ug/L			05/16/12 10:09	5
Carbon disulfide	1.2	U	10		ug/L			05/16/12 10:09	5
Methylene Chloride	0.75	U	25		ug/L			05/16/12 10:09	5
cis-1,2-Dichloroethene	0.30	U	5.0		ug/L			05/16/12 10:09	5
2-Butanone (MEK)	3.8	U	10	3.8	ug/L			05/16/12 10:09	5
Carbon tetrachloride	0.75	U	5.0	0.75	ug/L			05/16/12 10:09	5
Benzene	0.41	J	5.0	0.40	ug/L			05/16/12 10:09	5
1,2-Dichloroethane	0.70	U	5.0	0.70				05/16/12 10:09	5
Trichloroethene	0.90	U	5.0	0.90	ug/L			05/16/12 10:09	5
1,1,1-Trichloroethane	0.75	U	5.0	0.75	ug/L			05/16/12 10:09	5
1,1-Dichloroethane	0.55	U	5.0	0.55	ug/L			05/16/12 10:09	5
1,2-Dichloropropane	0.80	U	5.0	0.80	ug/L			05/16/12 10:09	5
2,2-Dichloropropane	0.65	U	5.0	0.65	ug/L			05/16/12 10:09	5
Dibromomethane	2.6	U	5.0	2.6	ug/L			05/16/12 10:09	5
Chloroform	0.65	U	5.0	0.65	ug/L			05/16/12 10:09	5
Bromodichloromethane	0.80	U	5.0	0.80	ug/L			05/16/12 10:09	5
1,1-Dichloropropene	1.1	U	5.0	1.1	ug/L			05/16/12 10:09	5
cis-1,3-Dichloropropene	0.90	U	5.0	0.90	ug/L			05/16/12 10:09	5
4-Methyl-2-pentanone (MIBK)	2.3	U	10	2.3	ug/L			05/16/12 10:09	5
Toluene	0.75	U	5.0	0.75	ug/L			05/16/12 10:09	5
trans-1,3-Dichloropropene	1.1	U	5.0	1.1	ug/L			05/16/12 10:09	5
1,1,2-Trichloroethane	1.4	U	5.0	1.4	ug/L			05/16/12 10:09	5
Tetrachloroethene	0.65	U	5.0	0.65	ug/L			05/16/12 10:09	5
1,3-Dichloropropane	1.1	U	5.0	1.1	ug/L			05/16/12 10:09	5
2-Hexanone	1.8	U	10	1.8	ug/L			05/16/12 10:09	5
Dibromochloromethane	0.75	U	5.0	0.75	ug/L			05/16/12 10:09	5
1,2-Dibromoethane	0.90	U	5.0	0.90	ug/L			05/16/12 10:09	5
Chlorobenzene	0.60	U	5.0		ug/L			05/16/12 10:09	5
1,1,1,2-Tetrachloroethane	0.90	U	5.0		ug/L			05/16/12 10:09	5
Ethylbenzene	0.55	U	5.0		ug/L			05/16/12 10:09	5
Xylenes, Total	1.3		5.0		ug/L			05/16/12 10:09	5
Styrene	0.35		5.0		ug/L			05/16/12 10:09	5
Bromoform	0.95	U	5.0		ug/L			05/16/12 10:09	5

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-9

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-4

Date Collected: 05/09/12 11:00 Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	0.90	U	5.0	0.90	ug/L			05/16/12 10:09	5
Bromobenzene	0.95	U	5.0	0.95	ug/L			05/16/12 10:09	5
1,2,3-Trichloropropane	1.5	U	5.0	1.5	ug/L			05/16/12 10:09	5
1,1,2,2-Tetrachloroethane	1.1	U	5.0	1.1	ug/L			05/16/12 10:09	5
N-Propylbenzene	0.75	U	5.0	0.75	ug/L			05/16/12 10:09	5
2-Chlorotoluene	0.65	U	5.0	0.65	ug/L			05/16/12 10:09	5
4-Chlorotoluene	0.70	U	5.0	0.70	ug/L			05/16/12 10:09	5
1,3,5-Trimethylbenzene	0.50	U	5.0	0.50	ug/L			05/16/12 10:09	5
tert-Butylbenzene	0.40	U	5.0	0.40	ug/L			05/16/12 10:09	5
4-Isopropyltoluene	0.50	U	5.0	0.50	ug/L			05/16/12 10:09	5
1,2,4-Trimethylbenzene	0.70	U	5.0	0.70	ug/L			05/16/12 10:09	5
sec-Butylbenzene	0.60	U	5.0	0.60	ug/L			05/16/12 10:09	5
1,3-Dichlorobenzene	0.65	U	5.0	0.65	ug/L			05/16/12 10:09	5
1,4-Dichlorobenzene	0.55	U	5.0	0.55	ug/L			05/16/12 10:09	5
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/L			05/16/12 10:09	5
n-Butylbenzene	0.80	U	5.0	0.80	ug/L			05/16/12 10:09	5
1,2-Dibromo-3-Chloropropane	4.1	U	5.0	4.1	ug/L			05/16/12 10:09	5
1,2,4-Trichlorobenzene	1.6	U	5.0	1.6	ug/L			05/16/12 10:09	5
Hexachlorobutadiene	0.85	U	5.0	0.85	ug/L			05/16/12 10:09	5
Naphthalene	1.6	U	5.0	1.6	ug/L			05/16/12 10:09	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96	3	67 - 139			_		05/16/12 10:09	5
Dibromofluoromethane	78		62 - 130					05/16/12 10:09	5
Toluene-d8 (Surr)	87		70 - 130					05/16/12 10:09	5
1,2-Dichloroethane-d4 (Surr)	77		50 - 134					05/16/12 10:09	5

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	1
Phenol	0.039	U	1.5	0.039	ug/L		05/14/12 16:21	05/15/12 20:05	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/15/12 20:05	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/14/12 16:21	05/15/12 20:05	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/14/12 16:21	05/15/12 20:05	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/14/12 16:21	05/15/12 20:05	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/14/12 16:21	05/15/12 20:05	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:05	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/14/12 16:21	05/15/12 20:05	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:05	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:05	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/14/12 16:21	05/15/12 20:05	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/14/12 16:21	05/15/12 20:05	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:05	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/14/12 16:21	05/15/12 20:05	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/14/12 16:21	05/15/12 20:05	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/14/12 16:21	05/15/12 20:05	1
2-Methylnaphthalene	0.069	U	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:05	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:05	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/14/12 16:21	05/15/12 20:05	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/14/12 16:21	05/15/12 20:05	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-9

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-4

Date Collected: 05/09/12 11:00 Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/14/12 16:21	05/15/12 20:05	×
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:05	
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/14/12 16:21	05/15/12 20:05	
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/14/12 16:21	05/15/12 20:05	
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/14/12 16:21	05/15/12 20:05	
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/14/12 16:21	05/15/12 20:05	
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:05	
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/14/12 16:21	05/15/12 20:05	
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:05	
Fluorene	0.20	J	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:05	
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/14/12 16:21	05/15/12 20:05	
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/14/12 16:21	05/15/12 20:05	
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:05	
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:05	
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/14/12 16:21	05/15/12 20:05	
Phenanthrene	0.059	U	1.5	0.059	ug/L		05/14/12 16:21	05/15/12 20:05	
Anthracene	0.049	U	0.99	0.049	ug/L		05/14/12 16:21	05/15/12 20:05	
Di-n-butyl phthalate	0.11	U	2.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:05	
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:05	
Pyrene	0.11	U	2.0	0.11	ug/L		05/14/12 16:21	05/15/12 20:05	
Butyl benzyl phthalate	0.12	U	2.5	0.12	ug/L		05/14/12 16:21	05/15/12 20:05	
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/14/12 16:21	05/15/12 20:05	
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	
Bis(2-ethylhexyl) phthalate	0.36	U	2.5	0.36	ug/L		05/14/12 16:21	05/15/12 20:05	
Chrysene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/14/12 16:21	05/15/12 20:05	
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 20:05	
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/14/12 16:21	05/15/12 20:05	
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 20:05	
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Phenol-d6	22		10 - 94				05/14/12 16:21	05/15/12 20:05	
2,4,6-Tribromophenol	63		10 - 123				05/14/12 16:21	05/15/12 20:05	
2-Fluorobiphenyl	61		43 - 116				05/14/12 16:21	05/15/12 20:05	
2-Fluorophenol	30		10 - 100			w00,00j4,00	05/14/12 16:21	05/15/12 20:05	
Nitrobenzene-d5	62		35 - 114				05/14/12 16:21	05/15/12 20:05	
Terphenyl-d14	55		33 - 141				05/14/12 16:21	05/15/12 20:05	

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)											
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac		
C6-C12	0.81	U	2.0	0.81	mg/L		05/15/12 14:14	05/16/12 07:22	1		
>C12-C28	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 07:22	1		
>C28-C35	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 07:22	1		
C6-C35	1.5	U	2.0	1.5	mg/L		05/15/12 14:14	05/16/12 07:22	1		

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-9

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-4 Date Collected: 05/09/12 11:00

Date Received: 05/11/12 10:10

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	89		70 - 130				05/15/12 14:14	05/16/12 07:22	1
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0034	J	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:08	1
Aluminum	0.051	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:08	1
Barium	0.23		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:08	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:08	1
Chromium	0.0022	J	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:08	1
Copper	0.0049	J B	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:08	1
Manganese	0.31		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:08	1
Nickel	0.0032	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:08	1
Lead	0.0032	J	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:08	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:08	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:08	1
Vanadium	0.0088	J	0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:12	1
Zinc	0.012	JB	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:08	1
Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	Ū	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:11	1

Client Sample ID: MW-20 Lab Sample ID: 600-54839-10 Date Collected: 05/09/12 12:15 Matrix: Water

Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L	31 -31 5		05/15/12 01:04	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 01:04	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 01:04	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 01:04	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 01:04	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 01:04	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 01:04	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 01:04	1
Methyl tert-butyl ether	3.1		1.0	0.12	ug/L			05/15/12 01:04	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 01:04	1
lodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 01:04	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 01:04	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 01:04	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 01:04	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 01:04	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 01:04	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 01:04	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 01:04	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 01:04	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 01:04	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 01:04	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 01:04	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 01:04	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 01:04	1

TestAmerica Houston 5/30/2012

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-10

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-20 Date Collected: 05/09/12 12:15 Date Received: 05/11/12 10:10

Method: 8260B - Volatile Orga Analyte	•	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.13	U	1.0	0.13	ug/L			05/15/12 01:04	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 01:04	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 01:04	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 01:04	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 01:04	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 01:04	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 01:04	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 01:04	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 01:04	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 01:04	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 01:04	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 01:04	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 01:04	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 01:04	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 01:04	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 01:04	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 01:04	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 01:04	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 01:04	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 01:04	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 01:04	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 01:04	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 01:04	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 01:04	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 01:04	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 01:04	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 01:04	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 01:04	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 01:04	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 01:04	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 01:04	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 01:04	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 01:04	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 01:04	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 01:04	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 01:04	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 01:04	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 01:04	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 01:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96	0	67 - 139			-		05/15/12 01:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139	· · · · · · · · · · · · · · · · · · ·	05/15/12 01:04	1
Dibromofluoromethane	80		62 - 130		05/15/12 01:04	1
Toluene-d8 (Surr)	87		70 - 130		05/15/12 01:04	1
1,2-Dichloroethane-d4 (Surr)	77		50 ₋ 134		05/15/12 01:04	1

Method: 8270C LL - Semivolatile Organic	Compounds by GCMS - Low Lovel	
Method. 02/00 LL - Seninvolatile Ordanic	Compounds by GCM3 - Low Level	

	. 9								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
Phenol	0.039	U	1.5	0.039	ug/L		05/14/12 16:21	05/15/12 20:31	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/15/12 20:31	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-10

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-20 Date Collected: 05/09/12 12:15

Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	0.13	8	2.0	0.13	0 <u>-</u>		05/14/12 16:21	05/15/12 20:31	
Benzyl alcohol	0.17		5.4		ug/L		05/14/12 16:21	05/15/12 20:31	
Bis(2-chloroisopropyl) ether	0.39		1.5	0.39	ug/L		05/14/12 16:21	05/15/12 20:31	
3 & 4 Methylphenol	0.20		0.99		ug/L		05/14/12 16:21	05/15/12 20:31	5505705
N-Nitrosodi-n-propylamine	0.099		2.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:31	
Hexachloroethane	0.099		2.0	0.099	ug/L		05/14/12 16:21	05/15/12 20:31	
Nitrobenzene	0.11		1.5	0.11			05/14/12 16:21	05/15/12 20:31	er ned ne
Isophorone	0.11		1.5	0.11	•		05/14/12 16:21	05/15/12 20:31	
2-Nitrophenol	0.11		0.99	0.11	•		05/14/12 16:21	05/15/12 20:31	,
2,4-Dimethylphenol	0.31		2.5	0.31			05/14/12 16:21	05/15/12 20:31	
• •	0.13		1.5		ug/L		05/14/12 16:21	05/15/12 20:31	
Bis(2-chloroethoxy)methane	0.15		2.5		_				
2,4-Dichlorophenol					ug/L		05/14/12 16:21	05/15/12 20:31	
4-Chloroaniline	0.21		0.99		ug/L		05/14/12 16:21	05/15/12 20:31	,
4-Chloro-3-methylphenol	0.17		0.99		ug/L		05/14/12 16:21	05/15/12 20:31	1
2-Methylnaphthalene	0.20		1.5	0.069			05/14/12 16:21	05/15/12 20:31	
Hexachlorocyclopentadiene	0.13		1.5		ug/L		05/14/12 16:21	05/15/12 20:31	
2,4,6-Trichlorophenol	0.18		2.0		ug/L		05/14/12 16:21	05/15/12 20:31	•
2,4,5-Trichlorophenol	0.25		2.0		ug/L		05/14/12 16:21	05/15/12 20:31	
2-Chloronaphthalene	0.079		1.5	0.079	-		05/14/12 16:21	05/15/12 20:31	,
2-Nitroaniline	0.19		2.5	0.19	ug/L		05/14/12 16:21	05/15/12 20:31	,
Dimethyl phthalate	0.069		2.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:31	
Acenaphthylene	0.059		0.99	0.059	ug/L		05/14/12 16:21	05/15/12 20:31	•
2,6-Dinitrotoluene	0.079		0.99	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	•
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/14/12 16:21	05/15/12 20:31	06/06/200
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/14/12 16:21	05/15/12 20:31	•
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/14/12 16:21	05/15/12 20:31	
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1012/01/19/19/19
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:31	•
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/14/12 16:21	05/15/12 20:31	•
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:31	
Fluorene	0.069	U	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:31	•
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/14/12 16:21	05/15/12 20:31	
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/14/12 16:21	05/15/12 20:31	
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:31	•
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:31	•
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/14/12 16:21	05/15/12 20:31	
Phenanthrene	0.059	U	1.5	0.059	ug/L		05/14/12 16:21	05/15/12 20:31	
Anthracene	0.049	U	0.99	0.049	ug/L		05/14/12 16:21	05/15/12 20:31	
Di-n-butyl phthalate	0.11	J	2.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:31	03,0317,03
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:31	
Pyrene	0.11	U	2.0	0.11	ug/L		05/14/12 16:21	05/15/12 20:31	
Butyl benzyl phthalate	0.31	J	2.5		ug/L		05/14/12 16:21	05/15/12 20:31	
3,3'-Dichlorobenzidine	0.18		9.9		ug/L		05/14/12 16:21	05/15/12 20:31	
Benzo[a]anthracene	0.079		2.0	0.079	_		05/14/12 16:21	05/15/12 20:31	
Bis(2-ethylhexyl) phthalate	0.36		2.5	0.36			05/14/12 16:21	05/15/12 20:31	
Chrysene	0.079		1.5	0.079			05/14/12 16:21	05/15/12 20:31	
Di-n-octyl phthalate	0.16		4.9		ug/L		05/14/12 16:21	05/15/12 20:31	
Benzo[b]fluoranthene	0.069		2.0	0.069			05/14/12 16:21	05/15/12 20:31	SZABZAB.
Benzo[k]fluoranthene	0.089		2.0	0.089	_		05/14/12 16:21	05/15/12 20:31	
Benzo[a]pyrene	0.079		1.5	0.089			05/14/12 16:21	05/15/12 20:31	

TestAmerica Job ID: 600-54839-1

Project/Site: R&H Oil

Client Sample ID: MW-20 Lab Sample ID: 600-54839-10

Date Collected: 05/09/12 12:15 Matrix: Water

Date Received: 05/11/12 10:10

Client: Pastor, Behling & Wheeler LLC

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 20:31	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	18	2.	10 - 94				05/14/12 16:21	05/15/12 20:31	1
2,4,6-Tribromophenol	62		10 - 123				05/14/12 16:21	05/15/12 20:31	1
2-Fluorobiphenyl	64		43 - 116				05/14/12 16:21	05/15/12 20:31	1
2-Fluorophenol	29		10 - 100				05/14/12 16:21	05/15/12 20:31	1
Nitrobenzene-d5	62		35 - 114				05/14/12 16:21	05/15/12 20:31	1
Terphenyl-d14	62		33 - 141				05/14/12 16:21	05/15/12 20:31	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.80	U	1.9	0.80	mg/L		05/15/12 14:14	05/16/12 07:56	1
>C12-C28	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 07:56	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 07:56	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/15/12 14:14	05/16/12 07:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	91	·	70 - 130				05/15/12 14:14	05/16/12 07:56	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:10	1
Aluminum	0.10	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:10	1
Barium	0.14		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:10	1
Cobalt	0.00070	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:10	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:10	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:10	1
Manganese	0.083		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:10	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:10	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:10	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:10	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:10	1
Vanadium	0.0061	J	0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:15	1
Zinc	0.0044	JB	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:10	1

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:13	1

Client Sample ID: MW-9

Lab Sample ID: 600-54839-11

Date Collected: 05/09/12 14:30

Matrix: Water

Date Collected: 05/09/12 14:30 Date Received: 05/11/12 10:10

Method: 8260B - Volatile Orga Analyte	•	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0		ug/L			05/15/12 01:32	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 01:32	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 01:32	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 01:32	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-11

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-9

Date Collected: 05/09/12 14:30 Date Received: 05/11/12 10:10

Chloroethane 0,080 U 2,0 0,000 ug/L 65/15/12 01/32 Inchborloomethane 0,080 U 1,0 0,000 ug/L 65/15/12 01/32 Inchborloomethane 0,090 U 1,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,12 U 1,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,12 U 1,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,12 U 1,0 0,12 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,12 U 1,0 0,12 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,12 U 2,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,20 U 2,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,20 U 2,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,20 U 1,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,000 U 1,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,000 U 1,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,000 U 1,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,000 U 1,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,000 U 1,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,000 U 1,0 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether-bulyl ether 0,000 ug/L 65/15/12 01/32 Methyl tert-bulyl ether-bulyl ether-bul	Analyte		Qualifier	MQL (Adj)	- 10	Unit	D	Prepared	Analyzed	Dil Fa
1.4-Dichforcethene				2.0		_			05/15/12 01:32	
trans-12-Dichloroentheme 0.99 U 1.0 0.99 UgL 65/15/12 0132 Accisione 0.99 U 5.0 0.19 UgL 65/15/12 0132 Accisione 0.99 U 5.0 0.99 UgL 65/15/12 0132 Idodomethane 2.0 U 2.0 2.0 UgL 65/15/12 0132 Activation 0.15 U 5.0 0.15 UgL 65/15/12 0132 Activation 0.00 U 1.0 0.00 UgL 65/15/12 0132 2-Butanone (MEK) 0.76 U 2.0 0.76 UgL 0.5/15/12 0132 2-Butanone (MEK) 0.76 U 1.0 0.15 UgL 0.6/15/12 0132 2-Butanone (MEK) 0.76 U 1.0 0.15 UgL 0.6/15/12 0132 2-Butanone (MEK) 0.15 U 1.0 0.15 UgL 0.6/15/12 0132 1-2-Dichlorostane 1.1 1.0 0.14 UgL 0.6/15/12 0132 1-2-Dichlorostane 1.2 1.0 0.18 UgL 0.6/15/12 0132 1-1-Dichlorostane 0.15 UgL 0.0 0.15 UgL 0.6/15/12 0132 1-2-Dichlorostoptopene <td>Trichlorofluoromethane</td> <td>0.080</td> <td>U</td> <td>1.0</td> <td>0.080</td> <td>ug/L</td> <td></td> <td></td> <td>05/15/12 01:32</td> <td></td>	Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 01:32	
Methy torchuyl ether	1,1-Dichloroethene	0.19	U	1.0		_			05/15/12 01:32	
Asedome	trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 01:32	
Indomethane	Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/15/12 01:32	
Carbon disulfide 0.24 U 2.0 0.24 ug/L 05/15/20132 Methylene Chloride 0.060 U 1.0 0.060 ug/L 05/15/20132 2-Butanone (MEK) 0.060 U 1.0 0.060 ug/L 05/15/20132 2-Butanone (MEK) 0.076 U 2.0 0.76 ug/L 05/15/20132 2-Butanone (MEK) 0.076 U 1.0 0.060 ug/L 05/15/20132 2-Butanone (MEK) 0.076 U 1.0 0.56 ug/L 05/15/20132 2-Butanone 0.23 J 1.0 0.060 ug/L 05/15/20132 2-Butanone 0.23 J 1.0 0.060 ug/L 05/15/20132 2-Butanone 0.23 J 1.0 0.060 ug/L 05/15/20132 2-Butanone 0.14 U 1.0 0.14 ug/L 05/15/20132 1-2-Dichloropehane 0.14 U 1.0 0.14 ug/L 05/15/20132 1-1,1-17-inchloroethane 0.15 U 1.0 0.15 ug/L 05/15/20132 1-1,1-17-inchloroethane 0.15 U 1.0 0.15 ug/L 05/15/20132 1-2-Dichloropepope 0.16 U 1.0 0.16 ug/L 05/15/20132 1-2-Dichloropepope 0.17 U 1.0 0.16 ug/L 05/15/20132 1-2-Dichloropepope 0.18 U 1.0 0.18 ug/L 05/15/20132 1-2-Dichloropepope 0.19 U 1.0 0.19 ug/L 05/15/20132 1-1-Dichloropepope 0.19 U 1.0 0.19 ug/L 05/15/20132 1-1-Dichloropepope 0.21 U 1.0 0.19 ug/L 05/15/20132 1-1-Dichloropepope 0.18 U 1.0 0.18 ug/L 05/15/20132 1-1-Dichloropepope 0.18 U 1.0 0.18 ug/L 05/15/20132 1-1-Dichloropepope 0.18 U 1.0 0.18 ug/L 05/15/20132 1-1-Dichloropepope 0.18 U 1.0 0.19 ug/L 05/15/20132 1-1-Dichloropepope 0.18 U 1.0 0.19 ug/L 05/15/20132 1-1-Dichloropepope 0.18 U 1.0 0.19 ug/L 05/15/20132 1-1-Dichloropepope 0.18 U 1.0 0.15 ug/L 05/15/20132 1-1-Dichloropepope 0.18 U 1.0 0.15 ug/L 05/15/20132 1-1-Dichloropepope 0.18 U 1.0 0.15 ug/L 05/15/20132 1-1-Dichloropepope 0.19 U 1.0 0.20 ug/L 05/15/20132 1-1-Dichloropepope 0.21 U 1.0 0.20 ug/L 05/15/20132 1-1-Dichloropepope 0.22 U 1.0 0.20 ug/L 05/15/20132 1-1-Dichloropepope 0.21 U 1.0 0.20 ug/L 05/15/20132 1-1-Dichloropepope 0.22 U 1.0 0.20 ug/L 05/15/20132 1-1-Dichloropepope 0.23 U 1.0 0.20 ug/L 05/15/20132 1-1-Dic	Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 01:32	
Methylene Chloride	lodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 01:32	
cis-1,2-Dichloroethene 0,060 U 1,0 0,060 ugl. 0515/12 0132 2-Putrance (MEK) 0,76 U 2,0 0,76 ugl. 0515/12 0132 Garbon tetrachloride 0,15 U 1,0 0,15 ugl. 0515/12 0132 Benzene 0,23 J 1,0 0,080 ugl. 0515/12 0132 1,1-17-fichloroethane 0,14 U 1,0 0,14 ugl. 0515/12 0132 1,1,1-17-fichloroethane 0,15 U 1,0 0,15 ugl. 0515/12 0132 1,1,1-17-fichloroethane 0,16 U 1,0 0,16 ugl. 0515/12 0132 1,1-Dichloropropane 0,16 U 1,0 0,16 ugl. 0515/12 0132 1,2-Dichloropropane 0,16 U 1,0 0,13 ugl. 0515/12 0132 1,1-Dichloropropane 0,16 U 1,0 0,13 ugl. 0515/12 0132 1,1-Dichloropropane 0,21 U 1,0 0,	Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 01:32	
2-Butanone (MEK) 0.76 U 0.76 U 0.076 ug/L 0.515 U 0.10 0.15 ug/L 0.51512 0.132 Benzene 0.23 J 1.0 0.080 ug/L 0.51572 0.132 12-Dichloroethane 0.14 U 0.0 0.14 ug/L 0.51572 0.132 11,1-Trichloroethane 1.2 1.0 0.18 ug/L 0.51572 0.132 11,1-Trichloroethane 0.15 U 0.0 0.18 ug/L 0.51572 0.132 11,1-Dichloroethane 0.11 U 0.0 0.18 ug/L 0.51572 0.132 11,1-Dichloroethane 0.11 U 0.0 0.11 ug/L 0.51572 0.132 11,1-Dichloroethane 0.11 U 0.0 0.11 ug/L 0.51572 0.132 11,1-Dichloroethane 0.13 U 0.0 0.10 ug/L 0.51572 0.132 0.1505000000000000000000000000000000000	Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 01:32	
Carbon tetrachloride	cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 01:32	
Benzene	2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 01:32	
1.2-Dichloroethane	Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 01:32	
Trichloroethene 1,2 1,0 0.18 gy/L 05/15/12 01:32 1,1,1-Tichloroethane 0.15 U 1,0 0.15 ug/L 05/15/12 01:32 1,2-Dichloropropane 0.16 U 1,0 0.11 ug/L 05/15/12 01:32 2,2-Dichloropropane 0.13 U 1,0 0.13 ug/L 05/15/12 01:32 2,2-Dichloroform 0.38 J 1,0 0.13 ug/L 05/15/12 01:32 Bromodichloromethane 0.16 U 1,0 0.13 ug/L 05/15/12 01:32 Bromodichloromethane 0.16 U 1,0 0.16 ug/L 05/15/12 01:32 Bromodichloromethane 0.16 U 1,0 0.16 ug/L 05/15/12 01:32 Bromodichloromethane 0.16 U 1,0 0.18 ug/L 05/15/12 01:32 Induction proper 0.18 U 1,0 0.18 ug/L 05/15/12 01:32 Induction proper 0.18 U 1,0 0.21	Benzene	0.23	J	1.0	0.080	ug/L			05/15/12 01:32	
1,1,1-Trichloroethane	1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 01:32	
1,1-Dichloroethane	Trichloroethene	1.2		1.0	0.18	ug/L			05/15/12 01:32	
1,2-Dichloropropane	1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 01:32	
2.2-Dichloropropane 0.13 U 1.0 0.13 ug/L 05/15/12 01:32 Dibromomethane 0.52 U 1.0 0.52 ug/L 05/15/12 01:32 Bromodichloromethane 0.16 U 1.0 0.13 ug/L 05/15/12 01:32 1.1-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 4-Methyl-2-pentanne (MIBK) 0.45 U 1.0 0.18 ug/L 05/15/12 01:32 4-Methyl-2-pentanne (MIBK) 0.45 U 1.0 0.15 ug/L 05/15/12 01:32 Toluene 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 Toluene 0.15 U 1.0 0.25 ug/L 05/15/12 01:32 Toluene 0.15 U 1.0 0.21 ug/L 05/15/12 01:32 Tetras-Inforecthane 0.28 U 1.0 0.21 ug/L 05/15/12 01:32 Tetras-Inforecthane 1.2 1.0 0.13 ug/L <td>1,1-Dichloroethane</td> <td>0.11</td> <td>U</td> <td>1.0</td> <td>0.11</td> <td>ug/L</td> <td></td> <td></td> <td>05/15/12 01:32</td> <td></td>	1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 01:32	
Dibromomethane 0.52 U	1,2-Dichloropropane	0.16	Ü	1.0	0.16	ug/L			05/15/12 01:32	
Dibromomethane 0.52 U	2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 01:32	
Bromodichloromethane 0.16 U 1.0 0.16 ug/L 05/15/12 01:32 1.1-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 4-Methyl-2-pentanone (MIBK) 0.45 U 2.0 0.45 ug/L 05/15/12 01:32 Toluene 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 Trans-1,3-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 Trans-1,3-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 Tetrachloroethane 1.2 1.0 0.13 ug/L 05/15/12 01:32 1,3-Dichloropropane 0.22 U 1.0 0.22 ug/L 05/15/12 01:32 2-Hexanone 0.35 U 2.0 0.35 ug/L 05/15/12 01:32 1,3-Dichloropropane 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 2-Hexanone 0.35 U 1.0 0.15		0.52	U	1.0	0.52	ug/L			05/15/12 01:32	
Bromodichloromethane 0.16 U 1.0 0.16 ug/L 05/15/12 01:32 1.1-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 4-Methyl-2-pentanone (MIBK) 0.45 U 2.0 0.45 ug/L 05/15/12 01:32 Toluene 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 Trans-1,3-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 Trans-1,3-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 Tetrachloroethane 1.2 1.0 0.13 ug/L 05/15/12 01:32 1,3-Dichloropropane 0.22 U 1.0 0.22 ug/L 05/15/12 01:32 2-Hexanone 0.35 U 2.0 0.35 ug/L 05/15/12 01:32 1,3-Dichloropropane 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 2-Hexanone 0.35 U 1.0 0.15	Chloroform	0.38	J	1.0	0.13	ug/L			05/15/12 01:32	
1,1-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 cis-1,3-Dichloropropene 0.18 U 1.0 0.18 ug/L 05/15/12 01:32 cis-1,3-Dichloropropene 0.18 U 1.0 0.18 ug/L 05/15/12 01:32 cis-1,3-Dichloropropene 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 trans-1,3-Dichloropropene 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 trans-1,3-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 trans-1,3-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 trans-1,3-Dichloropropene 0.22 U 1.0 0.13 ug/L 05/15/12 01:32 Tetrachloroethane 0.28 U 1.0 0.13 ug/L 05/15/12 01:32 Cis-1,3-Dichloropropene 0.22 U 1.0 0.13 ug/L 05/15/12 01:32 Dibromochloromethane 0.35 U 2.0 0.35 ug/L 05/15/12 01:32 Dibromochloromethane 0.35 U 2.0 0.35 ug/L 05/15/12 01:32 Dibromochloromethane 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 Dibromochloromethane 0.18 U 1.0 0.15 ug/L 05/15/12 01:32 Dibromochloromethane 0.18 U 1.0 0.18 ug/L 05/15/12 01:32 Till-1,1-1-Tetrachloroethane 0.18 U 1.0 0.18 ug/L 05/15/12 01:32 Ug/L 05/15/12 01:3				1.0		_			05/15/12 01:32	
cis-1,3-Dichloropropene 0.18 U 1.0 0.18 ug/L 05/15/12 01:32 4-Methyl-2-pentanone (MIBK) 0.45 U 2.0 0.45 ug/L 05/15/12 01:32 Toluene 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 Trans-1,3-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 1,1,2-Trichloroethane 0.28 U 1.0 0.28 ug/L 05/15/12 01:32 1,3-Dichloropropane 0.22 U 1.0 0.22 ug/L 05/15/12 01:32 2-Hexanone 0.35 U 2.0 0.35 ug/L 05/15/12 01:32 2-Hexanone 0.35 U 2.0 0.35 ug/L 05/15/12 01:32 2-Hexanone 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 2-Hexanone 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 1,2-Dibromoethane 0.18 U 1.0 0.18	1.1-Dichloropropene	0.21	U	1.0		_			05/15/12 01:32	
4-Methyl-2-pentanone (MIBK) 0.45 U 2.0 0.45 ug/L 05/15/12 01:32 Toluene 0.15 U 1.0 0.16 ug/L 05/15/12 01:32 trans-1,3-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 trans-1,3-Dichloropropene 0.21 U 1.0 0.28 ug/L 05/15/12 01:32 Totrachloroethane 0.28 U 1.0 0.28 ug/L 05/15/12 01:32 Totrachloroethane 0.28 U 1.0 0.13 ug/L 05/15/12 01:32 1,3-Dichloropropane 0.22 U 1.0 0.13 ug/L 05/15/12 01:32 2+exanone 0.35 U 2.0 0.35 ug/L 05/15/12 01:32 2+exanone 0.35 U 2.0 0.35 ug/L 05/15/12 01:32 1,2-Dibromochloromethane 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 1,2-Dibromochloromethane 0.18 U 1.0 0.15 ug/L 05/15/12 01:32 1,1.1.2-Tetrachloroethane 0.18 U 1.0 0.18 ug/L 05/15/12 01:32 1,1.1.2-Tetrachloroethane 0.18 U 1.0 0.18 ug/L 05/15/12 01:32 1,1.1.2-Tetrachloroethane 0.18 U 1.0 0.18 ug/L 05/15/12 01:32 Ethylbenzene 1.2 1.0 0.11 ug/L 05/15/12 01:32 Ethylbenzene 1.2 1.0 0.11 ug/L 05/15/12 01:32 Ethylbenzene 0.070 U 1.0 0.070 ug/L 05/15/12 01:32 Eromoform 0.19 U 1.0 0.19 ug/L 05/15/12 01:32 Eromoform 0.29 U 1.0 0.29 ug/L 05/15/12 01:32 Eromoforme 0.29 U 1.0 0.19 ug/L 05/15/12 01:32 Eromoforme 0.29 U 1.0 0.10 ug/L 05/15/12 01:32 Eromoforme 0.29 U 1.0 0.10 ug/L 05/15/12 01:32 Eromoforme 0.29 U 1.0 0.10 ug/L 05/15/12 01:32 Eromoforme 0.10 U 1.0 0.10 ug/L 05/15/12 01:32 Eromoforme 0.10 U 1.0 0.10 ug/L 05/	04,04,550,450,500,0451,14550,600,0214,04,550					oor Safe a rafe too				
Toluene 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 trans-1,3-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 01:32 1.1,2-Trichloroethane 0.28 U 1.0 0.28 ug/L 05/15/12 01:32 1.1,3-Dichloropropene 1.2 1.0 0.13 ug/L 05/15/12 01:32 1.3-Dichloropropene 0.22 U 1.0 0.28 ug/L 05/15/12 01:32 1.3-Dichloropropene 0.22 U 1.0 0.22 ug/L 05/15/12 01:32 1.3-Dichloropropene 0.25 U 1.0 0.22 ug/L 05/15/12 01:32 1.3-Dichloropropene 0.35 U 2.0 0.35 ug/L 05/15/12 01:32 1.3-Dichloropropene 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 1.3-Dibromochloromethane 0.15 U 1.0 0.15 ug/L 05/15/12 01:32 1.3-Dibromochloromethane 0.18 U 1.0 0.18 ug/L 05/15/12 01:32 1.3-Dibromochloropropene 0.12 U 1.0 0.18 ug/L 05/15/12 01:32 1.3-Dibromochlane 0.18 U 1.0 0.18 ug/L 05/15/12 01:32 1.3-Dibromochlane 0.18 U 1.0 0.18 ug/L 05/15/12 01:32 1.3-Dibromochlane 0.18 U 1.0 0.18 ug/L 05/15/12 01:32 1.3-Dibromochlane 0.19 U 1.0 0.18 ug/L 05/15/12 01:32 1.3-Dibromochlane 0.19 U 1.0 0.26 ug/L 05/15/12 01:32 1.3-Dibromochlane 0.19 U 1.0 0.26 ug/L 05/15/12 01:32 1.3-Dibromochlane 0.29 U 1.0 0.29 ug/L 05/15/12 01:32 1.3-Dibromochlane 0.19 U 1.0 0.19 ug/L 05/15/12 01:32 1.3-Dibromochl										
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sec-Butylbenzene 0.12 U 1.0 0.12 ug/L 05/15/12 01:32										

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-11

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-9 Date Collected: 05/09/12 14:30

Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 01:32	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 01:32	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 01:32	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 01:32	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 01:32	1
1,2,4-Trichlorobenzene	0.31	Ü	1.0	0.31	ug/L			05/15/12 01:32	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 01:32	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 01:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97	ô	67 - 139			-		05/15/12 01:32	1
Dibromofluoromethane	78		62 - 130					05/15/12 01:32	1
Toluene-d8 (Surr)	87		70 - 130					05/15/12 01:32	1
1,2-Dichloroethane-d4 (Surr)	77		50 ₋ 134					05/15/12 01:32	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
Phenol	0.039	U	1.5	0.039	ug/L		05/14/12 16:21	05/15/12 20:56	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/15/12 20:56	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/14/12 16:21	05/15/12 20:56	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/14/12 16:21	05/15/12 20:56	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/14/12 16:21	05/15/12 20:56	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/14/12 16:21	05/15/12 20:56	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:56	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/14/12 16:21	05/15/12 20:56	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:56	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:56	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/14/12 16:21	05/15/12 20:56	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/14/12 16:21	05/15/12 20:56	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/14/12 16:21	05/15/12 20:56	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/14/12 16:21	05/15/12 20:56	1
2-Methylnaphthalene	0.069	U	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:56	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/14/12 16:21	05/15/12 20:56	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/14/12 16:21	05/15/12 20:56	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:56	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/14/12 16:21	05/15/12 20:56	1
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/14/12 16:21	05/15/12 20:56	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/14/12 16:21	05/15/12 20:56	1
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:56	1
Diethyl phthalate	1.5	J	2.5	1.5	ug/L		05/14/12 16:21	05/15/12 20:56	1
4-Chlorophenyl phenyl ether	0.099		1.5	0.099			05/14/12 16:21	05/15/12 20:56	12002002

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

>C12-C28

>C28-C35

Surrogate

o-Terphenyl

C6-C35

Client Sample ID: MW-9

Date Collected: 05/09/12 14:30

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-11

TestAmerica Job ID: 600-54839-1

Matrix: Water

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.069	U	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:56	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/14/12 16:21	05/15/12 20:56	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/14/12 16:21	05/15/12 20:56	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:56	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:56	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/14/12 16:21	05/15/12 20:56	1
Phenanthrene	0.059	U	1.5	0.059	ug/L		05/14/12 16:21	05/15/12 20:56	1
Anthracene	0.049	U	0.99	0.049	ug/L		05/14/12 16:21	05/15/12 20:56	1
Di-n-butyl phthalate	0.29	J	2.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:56	1
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:56	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/14/12 16:21	05/15/12 20:56	1
Butyl benzyl phthalate	0.28	J	2.5	0.12	ug/L		05/14/12 16:21	05/15/12 20:56	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/14/12 16:21	05/15/12 20:56	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
Bis(2-ethylhexyl) phthalate	0.42	J	2.5	0.36	ug/L		05/14/12 16:21	05/15/12 20:56	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/14/12 16:21	05/15/12 20:56	1
Benzo[b]fluoranthene	0.069	Ü	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 20:56	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/14/12 16:21	05/15/12 20:56	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 20:56	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	18		10 - 94				05/14/12 16:21	05/15/12 20:56	1
2,4,6-Tribromophenol	66		10 - 123				05/14/12 16:21	05/15/12 20:56	1
2-Fluorobiphenyl	68		43 - 116				05/14/12 16:21	05/15/12 20:56	1
2-Fluorophenol	29		10 - 100				05/14/12 16:21	05/15/12 20:56	1
Nitrobenzene-d5	60		35 - 114				05/14/12 16:21	05/15/12 20:56	1
Terphenyl-d14	69		33 - 141				05/14/12 16:21	05/15/12 20:56	1
Method: TX 1005 - Texas - Tota	al Petroleum Hyd	rocarbon (0	GC)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.80	TI.	1.9	0.80	mg/L		05/15/12 14:14	05/16/12 08:30	1

-									
Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:12	1
Aluminum	0.034	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:12	1
Barium	0.21		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:12	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:12	1
Chromium	0.0016	J	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:12	1
Copper	0.0022	JB	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:12	1
Manganese	0.024		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:12	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:12	1

1.9

1.9

1.9

Limits

70 - 130

0.93 mg/L

0.93 mg/L

1.5 mg/L

05/15/12 14:14

05/15/12 14:14

05/15/12 14:14

Prepared

05/15/12 14:14

05/16/12 08:30

05/16/12 08:30

05/16/12 08:30

Analyzed

05/16/12 08:30

Dil Fac

0.93 U

0.93 U

1.5 U

%Recovery Qualifier

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-11

Matrix: Water

Client Sample ID: MW-9
Date Collected: 05/09/12 14:30

Date Received: 05/11/12 10:10

Method: 6010B - Metals (Analyte	• • • • • • • • • • • • • • • • • • • •	Qualifier	MQL (Adj)	SDI	Unit	D	Prepared	Analyzed	Dil Fac
9							-	Vi-	
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:12	29/25/25
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:12	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:12	1
Vanadium	0.0092	J	0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:17	1
Zinc	0.0031	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:12	1

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:14	1

Client Sample ID: MW-21 Lab Sample ID: 600-54839-12

Date Collected: 05/09/12 15:30

Matrix: Water

Date Received: 05/09/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 02:01	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 02:01	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 02:01	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 02:01	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 02:01	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 02:01	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 02:01	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 02:01	1
Methyl tert-butyl ether	0.37	J	1.0	0.12	ug/L			05/15/12 02:01	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 02:01	1
lodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 02:01	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 02:01	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 02:01	1
cis-1,2-Dichloroethene	0.82	J	1.0	0.060	ug/L			05/15/12 02:01	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 02:01	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 02:01	1
Benzene	0.33	J	1.0	0.080	ug/L			05/15/12 02:01	1
1,2-Dichloroethane	0.72	J	1.0	0.14	ug/L			05/15/12 02:01	1
Trichloroethene	2.3		1.0	0.18	ug/L			05/15/12 02:01	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 02:01	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 02:01	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 02:01	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 02:01	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 02:01	1
Chloroform	0.17	J	1.0	0.13	ug/L			05/15/12 02:01	1
Bromodichloromethane	1.2		1.0	0.16	ug/L			05/15/12 02:01	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 02:01	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 02:01	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 02:01	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 02:01	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 02:01	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 02:01	1
Tetrachloroethene	1.2		1.0	0.13	ug/L			05/15/12 02:01	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 02:01	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 02:01	1

2

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12

4

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-12

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-21
Date Collected: 05/09/12 15:30
Date Received: 05/11/12 10:10

1,2-Dichloroethane-d4 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued) Result Qualifier SDL Unit D Dil Fac Analyte Prepared Analyzed Dibromochloromethane 0.15 U 0.15 05/15/12 02:01 1.0 ug/L 1,2-Dibromoethane 0.18 U 1.0 0.18 05/15/12 02:01 ug/L Chlorobenzene 0.12 U 1.0 0.12 ug/L 05/15/12 02:01 1,1,1,2-Tetrachloroethane 0.18 U 1.0 0.18 ug/L 05/15/12 02:01 1.0 0.11 ug/L 05/15/12 02:01 Ethylbenzene 6.6 Xylenes, Total 0.26 U 05/15/12 02:01 1.0 0.26 ug/L Styrene 0.070 U 1.0 0.070 ug/L 05/15/12 02:01 Bromoform 0.19 U 1.0 0.19 05/15/12 02:01 ug/L Isopropylbenzene 1.9 1.0 0.18 ug/L 05/15/12 02:01 Bromobenzene 0.19 U 1.0 0.19 ug/L 05/15/12 02:01 1,2,3-Trichloropropane 0.29 U 1.0 0.29 ug/L 05/15/12 02:01 0.22 U 1,1,2,2-Tetrachloroethane 1.0 0.22 ug/L 05/15/12 02:01 05/15/12 02:01 N-Propylbenzene 2.3 1.0 0.15 ug/L 1 2-Chlorotoluene 0.13 U 1.0 0.13 ug/L 05/15/12 02:01 4-Chlorotoluene 0 14 U 1.0 0.14 ug/L 05/15/12 02:01 1,3,5-Trimethylbenzene 0.10 U 1.0 0.10 ug/L 05/15/12 02:01 1.0 tert-Butylbenzene 0.19 J 0.080 ug/L 05/15/12 02:01 4-Isopropyltoluene 0.10 U 1.0 0.10 05/15/12 02:01 ug/L 1,2,4-Trimethylbenzene 0.14 U 1.0 05/15/12 02:01 0.14 ug/L sec-Butylbenzene 0.26 J 1.0 0.12 ug/L 05/15/12 02:01 1,3-Dichlorobenzene 0.13 ug/L 05/15/12 02:01 0.13 U 1.0 0.11 U 1,4-Dichlorobenzene 1.0 0.11 ug/L 05/15/12 02:01 1,2-Dichlorobenzene 0.10 U 1.0 0.10 ug/L 05/15/12 02:01 n-Butylbenzene 0.37 J 1.0 0.16 ug/L 05/15/12 02:01 1,2-Dibromo-3-Chloropropane 0.81 U 1.0 0.81 ug/L 05/15/12 02:01 1,2,4-Trichlorobenzene 0.31 U 1.0 0.31 ug/L 05/15/12 02:01 Hexachlorobutadiene 0.17 1.0 0.17 05/15/12 02:01 ug/L 05/15/12 02:01 **Naphthalene** 1.0 0.32 ug/L 3.3 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 67 - 139 4-Bromofluorobenzene 98 05/15/12 02:01 Dibromofluoromethane 83 62 - 130 05/15/12 02:01 91 Toluene-d8 (Surr) 70 - 130 05/15/12 02:01

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1
Phenol	0.039	U	1.5	0.039	ug/L		05/14/12 16:21	05/15/12 21:22	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/15/12 21:22	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/14/12 16:21	05/15/12 21:22	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/14/12 16:21	05/15/12 21:22	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/14/12 16:21	05/15/12 21:22	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/14/12 16:21	05/15/12 21:22	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/14/12 16:21	05/15/12 21:22	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/14/12 16:21	05/15/12 21:22	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:22	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:22	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/14/12 16:21	05/15/12 21:22	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/14/12 16:21	05/15/12 21:22	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 21:22	1

50 - 134

80

05/15/12 02:01

5

6

0

10

12

14

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Terphenyl-d14

Client Sample ID: MW-21 Lab Sample ID: 600-54839-12

Date Collected: 05/09/12 15:30 Matrix: Water
Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDI	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	0.15	8	2.5	0.15			05/14/12 16:21	05/15/12 21:22	1
4-Chloroaniline	0.21		0.99	0.21			05/14/12 16:21	05/15/12 21:22	· 1
4-Chloro-3-methylphenol	0.17		0.99		ug/L		05/14/12 16:21	05/15/12 21:22	1
2-Methylnaphthalene	0.11		1.5	0.069	•		05/14/12 16:21	05/15/12 21:22	1
Hexachlorocyclopentadiene	0.13		1.5		ug/L		05/14/12 16:21	05/15/12 21:22	
2,4,6-Trichlorophenol	0.18		2.0		ug/L		05/14/12 16:21	05/15/12 21:22	1
2,4,5-Trichlorophenol	0.25		2.0		ug/L		05/14/12 16:21	05/15/12 21:22	1
2-Chloronaphthalene	0.079		1.5	0.079			05/14/12 16:21	05/15/12 21:22	· 1
2-Nitroaniline	0.19		2.5		ug/L		05/14/12 16:21	05/15/12 21:22	1
Dimethyl phthalate	0.069		2.5	0.069	•		05/14/12 16:21	05/15/12 21:22	1
Acenaphthylene	0.059		0.99	0.059			05/14/12 16:21	05/15/12 21:22	· 1
2,6-Dinitrotoluene	0.079		0.99	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1
3-Nitroaniline	0.16		2.5		ug/L		05/14/12 16:21	05/15/12 21:22	1
Acenaphthene	0.079		0.99	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1
2,4-Dinitrophenol	0.38		4.9	0.38	ug/L		05/14/12 16:21	05/15/12 21:22	1
4-Nitrophenol	0.55		2.5		ug/L		05/14/12 16:21	05/15/12 21:22	1
Dibenzofuran	0.13		1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	04011404
2,4-Dinitrotoluene	0.13		1.5	0.13	ug/L		05/14/12 16:21	05/15/12 21:22	1
Diethyl phthalate	1.5		2.5		ug/L		05/14/12 16:21	05/15/12 21:22	1
4-Chlorophenyl phenyl ether	0.099		1.5	0.099	ug/L		05/14/12 16:21	05/15/12 21:22	1
Fluorene	0.31		1.5	0.069	ug/L		05/14/12 16:21	05/15/12 21:22	1
4-Nitroaniline	0.25		2.5		ug/L ug/L		05/14/12 16:21	05/15/12 21:22	1
4,6-Dinitro-2-methylphenol	0.82		2.5		ug/L		05/14/12 16:21	05/15/12 21:22	
4-Bromophenyl phenyl ether	0.099		1.5	0.099	ug/L ug/L		05/14/12 16:21	05/15/12 21:22	1
Hexachlorobenzene	0.11		1.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:22	1
Pentachlorophenol	0.60		2.5	0.60	ug/L		05/14/12 16:21	05/15/12 21:22	1
Phenanthrene	0.16		1.5	0.059	ug/L ug/L		05/14/12 16:21	05/15/12 21:22	1
Anthracene	0.049		0.99	0.039	ug/L ug/L		05/14/12 16:21	05/15/12 21:22	1
	0.14		2.5	0.049	ug/L ug/L		05/14/12 16:21	05/15/12 21:22	
Di-n-butyl phthalate Fluoranthene	0.069		2.5	0.069	ug/L ug/L		05/14/12 16:21	05/15/12 21:22	1
Pyrene	0.009		2.0	0.009	ug/L ug/L		05/14/12 16:21	05/15/12 21:22	1
Butyl benzyl phthalate	0.11		2.5		ug/L ug/L		05/14/12 16:21	05/15/12 21:22	1
3,3'-Dichlorobenzidine	0.27		9.9		ug/L ug/L		05/14/12 16:21	05/15/12 21:22	1
Benzo[a]anthracene	0.079		2.0	0.18	-		05/14/12 16:21	05/15/12 21:22	1
			2.5		ug/L ug/L		05/14/12 16:21	05/15/12 21:22	1
Bis(2-ethylhexyl) phthalate	0.39 0.079			0.079	-				1
Chrysene Di p cetyl phthelete	0.079		1.5		ug/L ug/L		05/14/12 16:21	05/15/12 21:22	1
Di-n-octyl phthalate Benzo[b]fluoranthene			4.9		_		05/14/12 16:21	05/15/12 21:22	
	0.069		2.0	0.069	-		05/14/12 16:21	05/15/12 21:22	1
Benzo[k]fluoranthene	0.089 0.079		2.0	0.089			05/14/12 16:21	05/15/12 21:22 05/15/12 21:22	1
Benzo[a]pyrene			1.5	0.079			05/14/12 16:21		HOMERICAN HIS
Indeno[1,2,3-cd]pyrene	0.069		2.0	0.069			05/14/12 16:21	05/15/12 21:22	1
Dibenz(a,h)anthracene Benzo[g,h,i]perylene	0.079 0.079		2.5 2.5	0.079 0.079	-		05/14/12 16:21 05/14/12 16:21	05/15/12 21:22 05/15/12 21:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	20	-	10 - 94				05/14/12 16:21	05/15/12 21:22	1
2,4,6-Tribromophenol	77		10 - 123				05/14/12 16:21	05/15/12 21:22	1
2-Fluorobiphenyl	75		43 - 116				05/14/12 16:21	05/15/12 21:22	1
2-Fluorophenol	34		10 - 100				05/14/12 16:21	05/15/12 21:22	1
Nitrobenzene-d5	67		35 - 114				05/14/12 16:21	05/15/12 21:22	1

05/15/12 21:22

05/14/12 16:21

TestAmerica Job ID: 600-54839-1

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Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-21

Date Collected: 05/09/12 15:30

Date Received: 05/11/12 10:10

Project/Site: R&H Oil

Lab Sample ID: 600-54839-12

TestAmerica Job ID: 600-54839-1

Matrix: Water

Method: IX 1005 - Texas - Total Pe	troleum Hyd	rocarbon (G	3C)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.80	U	1.9	0.80	mg/L		05/15/12 14:14	05/16/12 09:05	1
>C12-C28	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 09:05	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 09:05	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/15/12 14:14	05/16/12 09:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	88	×	70 - 130	05/15/12 14:14	05/16/12 09:05	1

Method: 6010B - Metals (ICF	•							
Analyte	Result Qu	ualifier MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.019	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:15	1
Aluminum	0.14 J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:15	
Barium	0.11	0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:15	
Cobalt	0.0025 J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:15	
Chromium	0.0016 U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:15	1
Copper	0.0015 U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:15	1
Manganese	0.29	0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:15	
Nickel	0.0022 J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:15	•
Lead	0.0029 U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:15	1
Selenium	0.0042 U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:15	CHINGS NO
Thallium	0.0078 U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:15	•
Vanadium	0.0093 J	0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:20	1
Zinc	0.0037 J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:15	

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:16	1

Client Sample ID: MW-22 Lab Sample ID: 600-54839-13

Date Collected: 05/09/12 16:40 **Matrix: Water** Date Received: 05/11/12 10:10

Analyte Result	Qualifier
Method: 8260B - Volatile Organic Compounds	(GC/MS)

Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 02:30	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 02:30	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 02:30	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 02:30	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 02:30	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 02:30	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 02:30	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 02:30	1
Methyl tert-butyl ether	0.53	J	1.0	0.12	ug/L			05/15/12 02:30	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 02:30	1
lodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 02:30	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 02:30	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 02:30	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 02:30	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 02:30	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 02:30	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 02:30	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 02:30	1

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Dibromofluoromethane

1,2-Dichloroethane-d4 (Surr)

Toluene-d8 (Surr)

Lab Sample ID: 600-54839-13

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-22 Date Collected: 05/09/12 16:40 Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	1.2	÷	1.0	0.18	ug/L			05/15/12 02:30	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 02:30	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 02:30	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 02:30	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 02:30	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 02:30	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/15/12 02:30	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 02:30	1
1,1-Dichloropropene	0.21	U	1.0		ug/L			05/15/12 02:30	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 02:30	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 02:30	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 02:30	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 02:30	1
1,1,2-Trichloroethane	0.28	U	1.0		ug/L			05/15/12 02:30	1
Tetrachloroethene	1.4		1.0		ug/L			05/15/12 02:30	1
1,3-Dichloropropane	0.22	U	1.0		ug/L			05/15/12 02:30	1
2-Hexanone	0.35	U	2.0		ug/L			05/15/12 02:30	1
Dibromochloromethane	0.15	U	1.0		ug/L			05/15/12 02:30	1
1,2-Dibromoethane	0.18		1.0		ug/L			05/15/12 02:30	1
Chlorobenzene	0.12		1.0		ug/L			05/15/12 02:30	1
1,1,1,2-Tetrachloroethane	0.18		1.0		ug/L			05/15/12 02:30	1
Ethylbenzene	0.11		1.0		ug/L			05/15/12 02:30	1
Xylenes, Total	0.26		1.0		ug/L			05/15/12 02:30	1
Styrene	0.070		1.0	0.070				05/15/12 02:30	1
Bromoform	0.19		1.0		ug/L			05/15/12 02:30	1
Isopropylbenzene	0.18		1.0		ug/L			05/15/12 02:30	1
Bromobenzene	0.19		1.0		ug/L			05/15/12 02:30	1
1,2,3-Trichloropropane	0.29		1.0		ug/L			05/15/12 02:30	
1,1,2,2-Tetrachloroethane	0.22		1.0		ug/L			05/15/12 02:30	1
N-Propylbenzene	0.15		1.0		ug/L			05/15/12 02:30	1
2-Chlorotoluene	0.13		1.0		ug/L			05/15/12 02:30	1
4-Chlorotoluene	0.14		1.0		ug/L			05/15/12 02:30	1
1,3,5-Trimethylbenzene	0.10		1.0		ug/L			05/15/12 02:30	1
tert-Butylbenzene	0.080		1.0	0.080	C. Eventeer			05/15/12 02:30	· 1
4-Isopropyltoluene	0.10		1.0		-			05/15/12 02:30	1
1,2,4-Trimethylbenzene	0.14		1.0		ug/L			05/15/12 02:30	1
sec-Butylbenzene	0.14		1.0		ug/L			05/15/12 02:30	1
1,3-Dichlorobenzene	0.12		1.0		ug/L			05/15/12 02:30	1
1,4-Dichlorobenzene	0.13		1.0		ug/L ug/L			05/15/12 02:30	1
1,2-Dichlorobenzene	0.10				ug/L ug/L				י ממושות ביים 1
	0.10		1.0 1.0		ug/L ug/L			05/15/12 02:30 05/15/12 02:30	1 1
n-Butylbenzene 1.2-Dibromo-3-Chloropropane	0.16		1.0		ug/L ug/L				1
1,2-Dibromo-3-Chloropropane								05/15/12 02:30	
1,2,4-Trichlorobenzene	0.31		1.0		ug/L			05/15/12 02:30	1
Hexachlorobutadiene	0.17		1.0		ug/L			05/15/12 02:30	1
Naphthalene	0.69	J	1.0	0.32	ug/L			05/15/12 02:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97	¥	67 - 139			2		05/15/12 02:30	1
	37							33.3.72 32.30	,

05/15/12 02:30

05/15/12 02:30

05/15/12 02:30

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: MW-22 Lab Sample ID: 600-54839-13

Date Collected: 05/09/12 16:40 Matrix: Water

Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil F
Aniline	0.079	Ū	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	V-
Phenol	0.039	U	1.5	0.039	ug/L		05/14/12 16:21	05/15/12 21:48	
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/15/12 21:48	
2-Chlorophenol	0.13	U	2.0		ug/L		05/14/12 16:21	05/15/12 21:48	
Benzyl alcohol	0.17	U	5.4		ug/L		05/14/12 16:21	05/15/12 21:48	
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/14/12 16:21	05/15/12 21:48	
3 & 4 Methylphenol	0.20	Ü	0.99	0.20	ug/L		05/14/12 16:21	05/15/12 21:48	
N-Nitrosodi-n-propylamine	0.099		2.5	0.099	ug/L		05/14/12 16:21	05/15/12 21:48	
Hexachloroethane	0.099		2.0	0.099	ug/L		05/14/12 16:21	05/15/12 21:48	
Nitrobenzene	0.11		1.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:48	
sophorone	0.11		1.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:48	
2-Nitrophenol	0.22		0.99		ug/L		05/14/12 16:21	05/15/12 21:48	
2,4-Dimethylphenol	0.22		2.5	0.22			05/14/12 16:21	05/15/12 21:48	
	0.31		1.5		ug/L ug/L		05/14/12 16:21	05/15/12 21:48	
Bis(2-chloroethoxy)methane	0.15		2.5		-				
2,4-Dichlorophenol	0.13				ug/L		05/14/12 16:21	05/15/12 21:48	
4-Chloroaniline			0.99	0.21	•		05/14/12 16:21	05/15/12 21:48	
4-Chloro-3-methylphenol	0.17		0.99		ug/L		05/14/12 16:21	05/15/12 21:48	
2-Methylnaphthalene	0.069		1.5	0.069			05/14/12 16:21	05/15/12 21:48	
Hexachlorocyclopentadiene	0.13		1.5		ug/L		05/14/12 16:21	05/15/12 21:48	
2,4,6-Trichlorophenol	0.18		2.0		•		05/14/12 16:21	05/15/12 21:48	
2,4,5-Trichlorophenol	0.25		2.0	0.25	ug/L		05/14/12 16:21	05/15/12 21:48	
-Chloronaphthalene	0.079		1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/14/12 16:21	05/15/12 21:48	
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 21:48	
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/14/12 16:21	05/15/12 21:48	
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/14/12 16:21	05/15/12 21:48	
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/14/12 16:21	05/15/12 21:48	
1-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/14/12 16:21	05/15/12 21:48	
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 21:48	
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/14/12 16:21	05/15/12 21:48	
1-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 21:48	
Fluorene	0.069	U	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 21:48	
I-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/14/12 16:21	05/15/12 21:48	
1,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82			05/14/12 16:21	05/15/12 21:48	
1-Bromophenyl phenyl ether	0.099		1.5	0.099			05/14/12 16:21	05/15/12 21:48	
lexachlorobenzene	0.11		1.5		ug/L		05/14/12 16:21	05/15/12 21:48	
Pentachlorophenol	0.60		2.5		ug/L		05/14/12 16:21	05/15/12 21:48	
Phenanthrene	0.059		1.5	0.059	•		05/14/12 16:21	05/15/12 21:48	
Anthracene	0.049		0.99	0.049	_		05/14/12 16:21	05/15/12 21:48	
Di-n-butyl phthalate	0.043		2.5	0.11			05/14/12 16:21	05/15/12 21:48	
Fluoranthene	0.069		2.5	0.069			05/14/12 16:21	05/15/12 21:48	
	0.009		2.0		ug/L ug/L		05/14/12 16:21	05/15/12 21:48	
Pyrene									
Butyl benzyl phthalate	0.27		2.5		ug/L		05/14/12 16:21	05/15/12 21:48	
8,3'-Dichlorobenzidine	0.18		9.9		ug/L		05/14/12 16:21	05/15/12 21:48	
Benzo[a]anthracene	0.079		2.0	0.079			05/14/12 16:21	05/15/12 21:48	
Bis(2-ethylhexyl) phthalate	0.46		2.5		ug/L		05/14/12 16:21	05/15/12 21:48	
Chrysene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	

3

TestAmerica Job ID: 600-54839-1

5

7

9

1 A

12

4 -

2

Client: Pastor, Behling & Wheeler LLC
TestAmerica Job ID: 600-54839-1

0.93 U

1.5 U

%Recovery Qualifier

92

Result Qualifier

0.000026 U

Project/Site: R&H Oil

>C28-C35

Surrogate

Analyte

Mercury

o-Terphenyl

C6-C35

Client Sample ID: MW-22

Lab Sample ID: 600-54839-13

Matrix: Water

Date Collected: 05/09/12 16:40 Date Received: 05/11/12 10:10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 21:48	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/14/12 16:21	05/15/12 21:48	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 21:48	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	18		10 - 94				05/14/12 16:21	05/15/12 21:48	1
2,4,6-Tribromophenol	62		10 - 123				05/14/12 16:21	05/15/12 21:48	1
2-Fluorobiphenyl	65		43 - 116				05/14/12 16:21	05/15/12 21:48	1
2-Fluorophenol	31		10 - 100				05/14/12 16:21	05/15/12 21:48	1
Nitrobenzene-d5	60		35 - 114				05/14/12 16:21	05/15/12 21:48	1
Terphenyl-d14	63		33 - 141				05/14/12 16:21	05/15/12 21:48	1
Method: TX 1005 - Texas - T	otal Petroleum Hyd	rocarbon (GC)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.81	U	1.9	0.81	mg/L		05/15/12 14:14	05/16/12 09:39	1
>C12-C28	0.93	11	1.9	0.00	mg/L		05/15/12 14:14	05/16/12 09:39	

1.9

1.9

Limits

70 - 130

0.93 mg/L

1.5 mg/L

SDL Unit

0.000026 mg/L

05/15/12 14:14

05/15/12 14:14

Prepared

05/15/12 14:14

Prepared

05/14/12 09:05

05/16/12 09:39

05/16/12 09:39

Analyzed

05/16/12 09:39

Analyzed

05/14/12 16:18

Dil Fac

Dil Fac

Matrix: Water

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:17	1
Aluminum	0.041	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:17	1
Barium	0.18		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:17	1
Cobalt	0.00070) J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:17	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:17	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:17	1
Manganese	0.19		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:17	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:17	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:17	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:17	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:17	1
Vanadium	0.0042	J	0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:22	1
Zinc	0.0030	JB	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:17	1

Client Sample ID: MW-18 Lab Sample ID: 600-54839-14

MQL (Adj)

0.00020

Date Collected: 05/09/12 17:50 Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic O	Compounds ((GC/MS)							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	24	U *	200	24	ug/L			05/15/12 08:11	200

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-14

TestAmerica Job ID: 600-54839-1

Matrix: Water

Client Sample ID: MW-18 Date Collected: 05/09/12 17:50

Date Received: 05/11/12 10:10

Analyte	_3 6	Qualifier	MQL (Adj)	SDL	0 <u></u>	D	Prepared	Analyzed	Dil Fac
Chloromethane	36		400	36	ug/L			05/15/12 08:11	200
Vinyl chloride	22	U	400	22	ug/L			05/15/12 08:11	200
Bromomethane	50	U	400	50	ug/L			05/15/12 08:11	200
Chloroethane	16	U	400	16	ug/L			05/15/12 08:11	200
Trichlorofluoromethane	16	U	200	16	ug/L			05/15/12 08:11	200
1,1-Dichloroethene	38	U	200	38	ug/L			05/15/12 08:11	200
trans-1,2-Dichloroethene	18	U	200	18	ug/L			05/15/12 08:11	200
Methyl tert-butyl ether	24	U	200	24	ug/L			05/15/12 08:11	200
Acetone	200	U	1000	200	ug/L			05/15/12 08:11	200
lodomethane	400	U	400	400	ug/L			05/15/12 08:11	200
Carbon disulfide	48	U	400	48	ug/L			05/15/12 08:11	200
Methylene Chloride	30	U	1000	30	ug/L			05/15/12 08:11	200
cis-1,2-Dichloroethene	12	U	200	12	ug/L			05/15/12 08:11	200
2-Butanone (MEK)	150	U	400	150	ug/L			05/15/12 08:11	200
Carbon tetrachloride	30	U	200	30	ug/L			05/15/12 08:11	200
1,2-Dichloroethane	28	U	200	28	ug/L			05/15/12 08:11	200
Trichloroethene	36	U	200	36	ug/L			05/15/12 08:11	200
1,1,1-Trichloroethane	30	U	200	30	ug/L			05/15/12 08:11	200
1,1-Dichloroethane	22	U	200	22	ug/L			05/15/12 08:11	200
1,2-Dichloropropane	32	U	200	32	ug/L			05/15/12 08:11	200
2,2-Dichloropropane	26	U	200	26	ug/L			05/15/12 08:11	200
Dibromomethane	100	U	200	100	ug/L			05/15/12 08:11	200
Chloroform	26	U	200	26	ug/L			05/15/12 08:11	200
Bromodichloromethane	32	U	200		ug/L			05/15/12 08:11	200
1,1-Dichloropropene	42	U	200	42	ug/L			05/15/12 08:11	200
cis-1,3-Dichloropropene	36	U	200		ug/L			05/15/12 08:11	200
4-Methyl-2-pentanone (MIBK)	90	U	400		ug/L			05/15/12 08:11	200
Toluene	4500		200		ug/L			05/15/12 08:11	200
trans-1,3-Dichloropropene	42	U	200		ug/L			05/15/12 08:11	200
1,1,2-Trichloroethane	56		200		ug/L			05/15/12 08:11	200
Tetrachloroethene	26	U	200		ug/L			05/15/12 08:11	200
1,3-Dichloropropane	44		200		ug/L			05/15/12 08:11	200
2-Hexanone	70		400		ug/L			05/15/12 08:11	200
Dibromochloromethane	30	U	200		ug/L			05/15/12 08:11	200
1,2-Dibromoethane	36		200		ug/L			05/15/12 08:11	200
Chlorobenzene	24		200		ug/L			05/15/12 08:11	200
1,1,1,2-Tetrachloroethane	36		200		ug/L			05/15/12 08:11	200
Ethylbenzene	960	Ü	200		ug/L			05/15/12 08:11	200
Xylenes, Total	4100		200		ug/L			05/15/12 08:11	200
Styrene	19		200		ug/L			05/15/12 08:11	200
Bromoform	38		200		ug/L			05/15/12 08:11	200
	56		200		ug/L			05/15/12 08:11	200
Isopropylbenzene Bromobenzene	38		200		ug/L			05/15/12 08:11	200
	58								
1,2,3-Trichloropropane			200		ug/L			05/15/12 08:11	200
1,1,2,2-Tetrachloroethane	44		200		ug/L			05/15/12 08:11	200
N-Propylbenzene	52		200		ug/L			05/15/12 08:11	200
2-Chlorotoluene	26		200		ug/L			05/15/12 08:11	200
4-Chlorotoluene	28		200		ug/L			05/15/12 08:11	200
1,3,5-Trimethylbenzene	190		200		ug/L			05/15/12 08:11	200
tert-Butylbenzene 4-Isopropyltoluene	16	U U	200 200	16 20	ug/L			05/15/12 08:11 05/15/12 08:11	200

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-18

Date Collected: 05/09/12 17:50

Date Received: 05/11/12 10:10

Project/Site: R&H Oil

Benzene

Lab Sample ID: 600-54839-14

05/16/12 09:40

TestAmerica Job ID: 600-54839-1

Matrix: Water

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	480	·-	200	28	ug/L			05/15/12 08:11	200
sec-Butylbenzene	24	U	200	24	ug/L			05/15/12 08:11	200
1,3-Dichlorobenzene	26	U	200	26	ug/L			05/15/12 08:11	200
1,4-Dichlorobenzene	22	U	200	22	ug/L			05/15/12 08:11	200
1,2-Dichlorobenzene	20	U	200	20	ug/L			05/15/12 08:11	200
n-Butylbenzene	32	U	200	32	ug/L			05/15/12 08:11	200
1,2-Dibromo-3-Chloropropane	160	U	200	160	ug/L			05/15/12 08:11	200
1,2,4-Trichlorobenzene	62	U	200	62	ug/L			05/15/12 08:11	200
Hexachlorobutadiene	34	U	200	34	ug/L			05/15/12 08:11	200
Naphthalene	160	J	200	64	ug/L			05/15/12 08:11	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene	94		67 - 139			_		05/15/12 08:11	200
Dibromofluoromethane	79		62 - 130					05/15/12 08:11	200
Toluene-d8 (Surr)	86		70 - 130					05/15/12 08:11	200
1,2-Dichloroethane-d4 (Surr)	79		50 - 134					05/15/12 08:11	200
Method: 8260B - Volatile Orga	nic Compounds	(GC/MS) - D	ni.						
Analyte	•	Qualifier	MQL (Adj)	SDI	Unit	D	Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139		05/16/12 09:40	5000
Dibromofluoromethane	81		62 - 130		05/16/12 09:40	5000
Toluene-d8 (Surr)	87		70 - 130		05/16/12 09:40	5000
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		05/16/12 09:40	5000

5000

400 ug/L

22000

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 04:12	10
Phenol	31		15	0.39	ug/L		05/14/12 16:21	05/18/12 04:12	10
Bis(2-chloroethyl)ether	1.5	U	15	1.5	ug/L		05/14/12 16:21	05/18/12 04:12	10
2-Chlorophenol	1.3	U	20	1.3	ug/L		05/14/12 16:21	05/18/12 04:12	10
Benzyl alcohol	1.7	U	54	1.7	ug/L		05/14/12 16:21	05/18/12 04:12	10
Bis(2-chloroisopropyl) ether	3.9	U	15	3.9	ug/L		05/14/12 16:21	05/18/12 04:12	10
3 & 4 Methylphenol	110		9.9	2.0	ug/L		05/14/12 16:21	05/18/12 04:12	10
N-Nitrosodi-n-propylamine	0.99	U	25	0.99	ug/L		05/14/12 16:21	05/18/12 04:12	10
Hexachloroethane	0.99	U	20	0.99	ug/L		05/14/12 16:21	05/18/12 04:12	10
Nitrobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 04:12	10
Isophorone	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 04:12	10
2-Nitrophenol	2.2	U	9.9	2.2	ug/L		05/14/12 16:21	05/18/12 04:12	10
Bis(2-chloroethoxy)methane	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 04:12	10
2,4-Dichlorophenol	1.5	U	25	1.5	ug/L		05/14/12 16:21	05/18/12 04:12	10
4-Chloroaniline	2.1	U	9.9	2.1	ug/L		05/14/12 16:21	05/18/12 04:12	10
4-Chloro-3-methylphenol	1.7	U	9.9	1.7	ug/L		05/14/12 16:21	05/18/12 04:12	10
2-Methylnaphthalene	64		15	0.69	ug/L		05/14/12 16:21	05/18/12 04:12	10
Hexachlorocyclopentadiene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 04:12	10
2,4,6-Trichlorophenol	1.8	U	20	1.8	ug/L		05/14/12 16:21	05/18/12 04:12	10
2,4,5-Trichlorophenol	2.5	U	20	2.5	ug/L		05/14/12 16:21	05/18/12 04:12	10
2-Chloronaphthalene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 04:12	10
2-Nitroaniline	1.9	U	25	1.9	ug/L		05/14/12 16:21	05/18/12 04:12	10
Dimethyl phthalate	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 04:12	10

TestAmerica Houston 5/30/2012

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Terphenyl-d14

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-14

Matrix: Water

6

Client Sample ID: MW-18 Date Collected: 05/09/12 17:50 Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued) Result Qualifier SDL D Dil Fac Analyte MQL (Adj) Unit Prepared Analyzed 0.59 Ū 0.59 05/14/12 16:21 05/18/12 04:12 Acenaphthylene 9.9 ug/L 10 2,6-Dinitrotoluene 0.79 U 05/18/12 04:12 99 0.79 ug/L 05/14/12 16:21 10 3-Nitroaniline 1.6 U 25 1.6 ug/L 05/14/12 16:21 05/18/12 04:12 10 Acenaphthene 0.79 U 9.9 0.79 ug/L 05/14/12 16:21 05/18/12 04:12 10 2,4-Dinitrophenol 3.8 U 49 3.8 ug/L 05/14/12 16:21 05/18/12 04:12 10 5.5 U 25 05/14/12 16:21 05/18/12 04:12 4-Nitrophenol 5.5 ug/L 10 Dibenzofuran 0.79 U 15 0.79 ug/L 05/14/12 16:21 05/18/12 04:12 10 2,4-Dinitrotoluene 1.3 U 15 05/14/12 16:21 05/18/12 04:12 10 1.3 ug/L 15 U 25 Diethyl phthalate 15 ug/L 05/14/12 16:21 05/18/12 04:12 10 4-Chlorophenyl phenyl ether 0.99 U 15 0.99 ug/L 05/14/12 16:21 05/18/12 04:12 10 15 Fluorene 0.69 U 0.69 ug/L 05/14/12 16:21 05/18/12 04:12 10 2.5 U 25 05/14/12 16:21 4-Nitroaniline 2.5 ug/L 05/18/12 04:12 10 4,6-Dinitro-2-methylphenol 82 U 25 8.2 ug/L 05/14/12 16:21 05/18/12 04:12 10 4-Bromophenyl phenyl ether 0.99 U 15 0.99 ug/L 05/14/12 16:21 05/18/12 04:12 10 15 Hexachlorobenzene 11 U 05/14/12 16:21 05/18/12 04:12 10 1.1 ug/L Pentachlorophenol 6.0 U 25 6.0 05/14/12 16:21 05/18/12 04:12 10 ug/L 0.59 U 15 ug/L Phenanthrene 0.59 05/14/12 16:21 05/18/12 04:12 10 Anthracene 0.49 U 9.9 0.49 05/14/12 16:21 05/18/12 04:12 10 ug/L Di-n-butyl phthalate 1.1 U 25 05/14/12 16:21 05/18/12 04:12 10 ug/L 1.1 25 Fluoranthene 0.69 U 0.69 ug/L 05/14/12 16:21 05/18/12 04:12 10 05/18/12 04:12 Pyrene 1.1 U 20 1.1 ug/L 05/14/12 16:21 10 1.2 U 25 Butyl benzyl phthalate 1.2 ug/L 05/14/12 16:21 05/18/12 04:12 10 3,3'-Dichlorobenzidine 1.8 U 99 1.8 ug/L 05/14/12 16:21 05/18/12 04:12 10 Benzo[a]anthracene 0.79 U 20 0.79 ug/L 05/14/12 16:21 05/18/12 04:12 10 Bis(2-ethylhexyl) phthalate 3.6 U 25 3.6 ug/L 05/14/12 16:21 05/18/12 04:12 10 15 Chrysene 0.79 U 0.79 05/14/12 16:21 05/18/12 04:12 10 ug/L Di-n-octyl phthalate 49 05/14/12 16:21 05/18/12 04:12 1.6 U 1.6 ug/L 10 Benzo[b]fluoranthene 0.69 U 20 0.69 ug/L 05/14/12 16:21 05/18/12 04:12 10 Benzo[k]fluoranthene 0.89 U 20 0.89 ug/L 05/14/12 16:21 05/18/12 04:12 10 0.79 U 15 05/14/12 16:21 05/18/12 04:12 Benzo[a]pyrene 0.79 ug/L 10 Indeno[1,2,3-cd]pyrene 0.69 U 20 0.69 ug/L 05/14/12 16:21 05/18/12 04:12 10 Dibenz(a,h)anthracene 0.79 U 25 0.79 ug/L 05/14/12 16:21 05/18/12 04:12 10 Benzo[g,h,i]perylene 0.79 U 25 0.79 ug/L 05/14/12 16:21 05/18/12 04:12 10 %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac Phenol-d6 11 10 - 94 05/14/12 16:21 05/18/12 04:12 10 2,4,6-Tribromophenol 90 10 - 123 05/14/12 16:21 05/18/12 04:12 10 2-Fluorobiphenyl 101 43 - 116 05/14/12 16:21 05/18/12 04:12 10 2-Fluorophenol 48 10 - 100 05/14/12 16:21 05/18/12 04:12 10 Nitrobenzene-d5 136 X 35 - 114 05/14/12 16:21 05/18/12 04:12 10

Method: 8270C LL - Semivolatile Organi	c Comp	oounds by	GCMS - L	ow Levels - I	DL	
Analyte	Result	Qualifier	MQL (A	Adj) SE	DL	Unit

87

2,4-Dimethylphenol	660		120	15 ug/L	05/14/12 16:21	05/23/12 13:11	50
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94		05/14/12 16:21	05/23/12 13:11	50
2,4,6-Tribromophenol	0	X	10 - 123		05/14/12 16:21	05/23/12 13:11	50
2-Fluorobiphenyl	0	X	43 - 116		05/14/12 16:21	05/23/12 13:11	50
2-Fluorophenol	0	X	10 - 100		05/14/12 16:21	05/23/12 13:11	50
Nitrobenzene-d5	0	X	35 - 114		05/14/12 16:21	05/23/12 13:11	50

33 - 141

05/18/12 04:12

Analyzed

10

Dil Fac

05/14/12 16:21

Prepared

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-18

Date Collected: 05/09/12 17:50

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-14

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14		X	33 - 141	05/14/12 16:21	05/23/12 13:11	50

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	19	\$	2.0	0.81	mg/L		05/15/12 14:14	05/16/12 10:48	1
>C12-C28	2.7		2.0	0.94	mg/L		05/15/12 14:14	05/16/12 10:48	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 10:48	1
C6-C35	22		2.0	1.5	mg/L		05/15/12 14:14	05/16/12 10:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	102	8-	70 - 130				05/15/12 14:14	05/16/12 10:48	1

Method: 6010B - Metals (IC	•		MOL (Adi)	eni	l lmi4		Dramarad	Amakanad	Dil Faa
Analyte	Result Q	luaimer	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.15		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:20	1
Aluminum	0.041 J		0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:20	1
Barium	0.40		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:20	1
Cobalt	0.0029 J		0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:20	1
Chromium	0.0016 U	l	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:20	1
Copper	0.0024 J	В	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:20	1
Manganese	0.93		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:20	1
Nickel	0.0047 J		0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:20	1
Lead	0.0033 J		0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:20	1
Selenium	0.0042 U		0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:20	1
Thallium	0.0078 U	l	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:20	1
Vanadium	0.0017 U	^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 19:20	1
Zinc	0.0034 J	В	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:20	1

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:20	1

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	1.0	0.18	ug/L	8260B
1,1,1-Trichloroethane	1.0	0.15	ug/L	8260B
1,1,2,2-Tetrachloroethane	1.0	0.22	ug/L	8260B
1,1,2-Trichloroethane	1.0	0.28	ug/L	8260B
1,1-Dichloroethane	1.0	0.11	ug/L	8260B
1,1-Dichloroethene	1.0	0.19	ug/L	8260B
1,1-Dichloropropene	1.0	0.21	ug/L	8260B
1,2,3-Trichloropropane	1.0	0.29	ug/L	8260B
1,2,4-Trichlorobenzene	1.0	0.31	ug/L	8260B
1,2,4-Trimethylbenzene	1.0	0.14	ug/L	8260B
1,2-Dibromo-3-Chloropropane	1.0	0.81	ug/L	8260B
1,2-Dibromoethane	1.0	0.18	ug/L	8260B
1,2-Dichlorobenzene	1.0	0.10	ug/L	8260B
1,2-Dichloroethane	1.0	0.14	ug/L	8260B
1,2-Dichloropropane	1.0	0.16	ug/L	8260B
1,3,5-Trimethylbenzene	1.0	0.10	ug/L	8260B
1,3-Dichlorobenzene	1.0	0.13	ug/L	8260B
1,3-Dichloropropane	1.0	0.22	ug/L	8260B
1,4-Dichlorobenzene	1.0	0.11	ug/L	8260B
2,2-Dichloropropane	1.0	0.13	ug/L	8260B
2-Butanone (MEK)	2.0	0.76	ug/L	8260B
2-Chlorotoluene	1.0	0.13	ug/L	8260B
2-Hexanone	2.0	0.35	ug/L	8260B
4-Chlorotoluene	1.0	0.14	ug/L	8260B
4-Isopropyltoluene	1.0	0.10	ug/L	8260B
4-Methyl-2-pentanone (MIBK)	2.0	0.45	ug/L	8260B
Acetone	5.0	0.99	ug/L	8260B
Benzene	1.0	0.080	ug/L	8260B
Bromobenzene	1.0	0.19	ug/L	8260B
Bromodichloromethane	1.0	0.16	ug/L	8260B
Bromoform	1.0	0.19	ug/L	8260B
Bromomethane	2.0	0.25	ug/L	8260B
Carbon disulfide	2.0	0.24	ug/L	8260B
Carbon tetrachloride	1.0	0.15	ug/L	8260B
Chlorobenzene	1.0	0.12	ug/L	8260B
Chloroethane	2.0	0.080	ug/L	8260B
Chloroform	1.0	0.13	ug/L	8260B
Chloromethane	2.0	0.18	ug/L	8260B
cis-1,2-Dichloroethene	1.0	0.060	ug/L	8260B
	1.0 - 1:12 - 1:2 -	0.000		8260B
cis-1,3-Dichloropropene Dibromochloromethane	1.0	0.15	ug/L	8260B
			ug/L	8260B
Dibromomethane	1.0	0.52	ug/L	
Dichlorodifluoromethane	1.0	0.12	ug/L	8260B
Ethylbenzene	1.0	0.11	ug/L	8260B
Hexachlorobutadiene	1.0	0.17	ug/L	8260B
odomethane	2.0	2.0	ug/L	8260B
sopropylbenzene	1.0	0.18	ug/L	8260B
Methyl tert-butyl ether	1.0	0.12	ug/L	8260B
Methylene Chloride	5.0	0.15	ug/L	8260B
Naphthalene	1.0	0.32	ug/L	8260B
n-Butylbenzene	1.0	0.16	ug/L	8260B
N-Propylbenzene	1.0	0.15	ug/L	8260B
sec-Butylbenzene	1.0	0.12	ug/L	8260B

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	MQL	MDL	Units	Method
Styrene	1.0	0.070	ug/L	8260B
tert-Butylbenzene	1.0	0.080	ug/L	8260B
Tetrachloroethene	1.0	0.13	ug/L	8260B
Toluene	1.0	0.15	ug/L	8260B
trans-1,2-Dichloroethene	1.0	0.090	ug/L	8260B
trans-1,3-Dichloropropene	1.0	0.21	ug/L	8260B
Trichloroethene	1.0	0.18	ug/L	8260B
Trichlorofluoromethane	1.0	0.080	ug/L	8260B
Vinyl chloride	2.0	0.11	ug/L	8260B
Xylenes, Total	1.0	0.26	ug/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
2,4,5-Trichlorophenol	2.0	0.25	ug/L	8270C LL
2,4,6-Trichlorophenol	2.0	0.18	ug/L	8270C LL
2,4-Dichlorophenol	2.5	0.15	ug/L	8270C LL
2,4-Dimethylphenol	2.5	0.31	ug/L	8270C LL
2,4-Dinitrophenol	5.0	0.39	ug/L	8270C LL
2,4-Dinitrotoluene	1.5	0.13	ug/L	8270C LL
2,6-Dinitrotoluene	1.0	0.080	ug/L	8270C LL
2-Chloronaphthalene	1.5	0.080	ug/L	8270C LL
2-Chlorophenol	2.0	0.13	ug/L	8270C LL
2-Methylnaphthalene	1.5	0.070	ug/L	8270C LL
2-Nitroaniline	2.5	0.19	ug/L	8270C LL
2-Nitrophenol	1.0	0.22	ug/L	8270C LL
3 & 4 Methylphenol	1.0	0.20	ug/L	8270C LL
3,3'-Dichlorobenzidine	10	0.18	ug/L	8270C LL
3-Nitroaniline	2.5	0.16	ug/L	8270C LL
4,6-Dinitro-2-methylphenol	2.5	0.83	ug/L	8270C LL
4-Bromophenyl phenyl ether	1.5	0.10	ug/L	8270C LL
4-Chloro-3-methylphenol	1.0	0.17	ug/L	8270C LL
4-Chloroaniline	1.0	0.21	ug/L	8270C LL
4-Chlorophenyl phenyl ether	1.5	0.10	ug/L	8270C LL
4-Nitroaniline	2.5	0.25	ug/L	8270C LL
4-Nitrophenol	2.5	0.56	ug/L	8270C LL
Acenaphthene	1.0	0.080	ug/L	8270C LL
Acenaphthylene	1.0	0.060	ug/L	8270C LL
Aniline	1.5	0.080	ug/L	8270C LL
Anthracene	1.0	0.050	ug/L	8270C LL
Benzo[a]anthracene	2.0	0.080	ug/L	8270C LL
Benzo[a]pyrene	1.5	0.080	ug/L	8270C LL
Benzo[b]fluoranthene	2.0	0.070	ug/L	8270C LL
Benzo[g,h,i]perylene	2.5	0.080	ug/L	8270C LL
Benzo[k]fluoranthene	2.0	0.090	ug/L	8270C LL
Benzyl alcohol	5.5	0.17	ug/L	8270C LL
Bis(2-chloroethoxy)methane	1.5	0.13	ug/L	8270C LL
Bis(2-chloroethyl)ether	1.5	0.15	ug/L	8270C LL
Bis(2-chloroisopropyl) ether	1.5	0.40	ug/L	8270C LL
Bis(2-ethylhexyl) phthalate	2.5	0.37	ug/L	8270C LL
Butyl benzyl phthalate	2.5	0.12	ug/L	8270C LL
Chrysene	1.5	0.080	ug/L	8270C LL
Dibenz(a,h)anthracene	2.5	0.080	ug/L	8270C LL

Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Org	janic Compounds k	y GCMS - L	ow Levels (Continued)
ALida	MOI	MDI	11!4-

Analyte	MQL	MDL	Units	Method
Dibenzofuran	1.5	0.080	ug/L	8270C LL
Diethyl phthalate	2.5	1.5	ug/L	8270C LL
Dimethyl phthalate	2.5	0.070	ug/L	8270C LL
Di-n-butyl phthalate	2.5	0.11	ug/L	8270C LL
Di-n-octyl phthalate	5.0	0.16	ug/L	8270C LL
Fluoranthene	2.5	0.070	ug/L	8270C LL
Fluorene	1.5	0.070	ug/L	8270C LL
Hexachlorobenzene	1.5	0.11	ug/L	8270C LL
Hexachlorocyclopentadiene	1.5	0.13	ug/L	8270C LL
Hexachloroethane	2.0	0.10	ug/L	8270C LL
Indeno[1,2,3-cd]pyrene	2.0	0.070	ug/L	8270C LL
Isophorone	1.5	0.11	ug/L	8270C LL
Nitrobenzene	1.5	0.11	ug/L	8270C LL
N-Nitrosodi-n-propylamine	2.5	0.10	ug/L	8270C LL
Pentachlorophenol	2.5	0.61	ug/L	8270C LL
Phenanthrene	1.5	0.060	ug/L	8270C LL
Phenol	1.5	0.040	ug/L	8270C LL
Pyrene	2.0	0.11	ug/L	8270C LL

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	MQL	MDL	Units	Method	
>C12-C28	2.0	0.96	mg/L	TX 1005	
>C28-C35	2.0	0.96	mg/L	TX 1005	
C6-C12	2.0	0.83	mg/L	TX 1005	
C6-C35	2.0	1.6	mg/L	TX 1005	

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Aluminum	0.50	0.022	mg/L	6010B
Arsenic	0.010	0.0033	mg/L	6010B
Barium	0.020	0.0022	mg/L	6010B
Chromium	0.010	0.0016	mg/L	6010B
Cobalt	0.010	0.00063	mg/L	6010B
Copper	0.010	0.0015	mg/L	6010B
Lead	0.010	0.0029	mg/L	6010B
Manganese	0.010	0.00084	mg/L	6010B
Nickel	0.010	0.0018	mg/L	6010B
Selenium	0.040	0.0042	mg/L	6010B
Thallium	0.030	0.0078	mg/L	6010B
Vanadium	0.010	0.0017	mg/L	6010B
Zinc	0.030	0.0022	mg/L	6010B

Method: 7470A - Mercury (CVAA)

Analyte	MQL	MDL	Units	Method
Mercury	0.00020	0.000026	mg/L	7470A

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

				ance Limits)		
		BFB	DBFM	TOL	12DCE	
_ab Sample ID	Client Sample ID	(67-139)	(62-130)	(70-130)	(50-134)	
600-54839-1	MW-16	101	93	86	91	· — · · · · · · · · · · · · · · · · · ·
600-54839-1 - DL	MW-16	100	78	84	78	
600-54839-2	MW-14	98	78	90	77	
600-54839-2 - DL	MW-14	98	79	87	79	
600-54839-3	MW-19	94	81	86	79	
600-54839-3 - DL	MW-19	93	81	86	79	
600-54839-4	MW-17	95	79	87	78	
600-54839-4 - DL	MW-17	98	81	86	79	
600-54839-5	MW-15	98	78	87	80	
600-54839-5 - DL	MW-15	98	75	87	76	
600-54839-5 - DL	MW-15	100	78	85	78	
600-54839-6	MW-12	95	81	87	80	
600-54839-6 - DL	MW-12	95	82	85	81	
600-54839-7	MW-3	94	78	89	76	
600-54839-7 - DL	MW-3	100	81	87	76	
600-54839-8 - DL	MW-2	97	80	88	80	
600-54839-8	MW-2	100	83	84	78	
600-54839-9	MW-4	96	78	87	77	
600-54839-10	MW-20	96	80	87	77	
600-54839-11	MW-9	97	78	87	77	
600-54839-12	MW-21	98	83	91	80	
600-54839-13	MW-22	97	82	85	80	
600-54839-14	MW-18	94	79	86	79	
600-54839-14 - DL	MW-18	102	81	87	81	
CS 600-79199/3	Lab Control Sample	101	91	89	82	
CS 600-79279/3	Lab Control Sample	98	85	86	80	
_CS 600-79300/5	Lab Control Sample	99	82	87	77	
CS 600-79383/3	Lab Control Sample	100	83	88	79	
CS 600-79394/3	Lab Control Sample	100	85	85	80	
ИВ 600-79199/4	Method Blank	99	88	90	85	
ИВ 600-79279/4	Method Blank	99	78	87	75	
MB 600-79300/7	Method Blank	103	81	86	80	
MB 600-79383/4	Method Blank	102	80	87	78	
MB 600-79394/4	Method Blank	100	82	84	80	

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)					
		PHL	TBP	FBP	2FP	NBZ	TPH	
Lab Sample ID	Client Sample ID	(10-94)	(10-123)	(43-116)	(10-100)	(35-114)	(33-141)	
600-54839-1	MW-16	34	89	89	38	91	63	
600-54839-2	MW-14	0 X	0 X	0 X	0 X	0 X	0 X	
600-54839-3	MW-19	24	80	74	34	69	69	
600-54839-4	MW-17	9 X	72	92	43	71	82	

TestAmerica Houston 5/30/2012

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)					
		PHL	TBP	FBP	2FP	NBZ	TPH	
Lab Sample ID	Client Sample ID	(10-94)	(10-123)	(43-116)	(10-100)	(35-114)	(33-141)	
600-54839-5	MW-15	35	111	96	48	100	97	
600-54839-6	MW-12	23	41	67	36	91	62	
600-54839-7	MW-3	0 X	0 X	0 X	0 X	0 X	0 X	
600-54839-8	MW-2	27	62	87	39	90	87	
600-54839-9	MW-4	22	63	61	30	62	55	
600-54839-10	MW-20	18	62	64	29	62	62	
600-54839-11	MW-9	18	66	68	29	60	69	
600-54839-12	MW-21	20	77	75	34	67	76	
600-54839-13	MW-22	18	62	65	31	60	63	
600-54839-14	MW-18	11	90	101	48	136 X	87	
600-54839-14 - DL	MW-18	0 X	0 X	0 X	0 X	0 X	0 X	
LCS 600-79230/2-A	Lab Control Sample	75	77	77	69	69	74	
MB 600-79230/1-A	Method Blank	70	64	79	66	75	73	

Surrogate Legend

PHL = Phenol-d6

TBP = 2,4,6-Tribromophenol

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

NBZ = Nitrobenzene-d5

TPH = Terphenyl-d14

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		ОТРН	
Lab Sample ID	Client Sample ID	(70-130)	
600-54839-1	MW-16	92	
600-54839-2	MW-14	74	
600-54839-3	MW-19	92	
600-54839-4	MW-17	89	
600-54839-5	MW-15	102	
600-54839-6	MW-12	90	
600-54839-7	MW-3	168 X	
600-54839-8	MW-2	97	
600-54839-9	MW-4	89	
600-54839-10	MW-20	91	
600-54839-11	MW-9	93	
600-54839-12	MW-21	88	
600-54839-13	MW-22	92	
600-54839-14	MW-18	102	
_CS 600-79306/2-A	Lab Control Sample	117	
_CSD 600-79306/3-A	Lab Control Sample Dup	120	
MB 600-79306/1-A	Method Blank	97	
Surrogate Legend			
OTPH = o-Terphenyl			

QC Sample Results

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: Method Blank Prep Type: Total/NA

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-79199/4 Matrix: Water

Analysis Batch: 79199								Fieb Type. I	Otalii
, , , , , , , , , , , , , , , , , , , ,	МВ	MB							
Analyte	Result	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/14/12 10:55	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/14/12 10:55	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/14/12 10:55	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/14/12 10:55	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/14/12 10:55	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/14/12 10:55	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/14/12 10:55	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/14/12 10:55	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/14/12 10:55	1
Acetone	0.99	U	5.0	0.99	ug/L			05/14/12 10:55	1
lodomethane	2.0	U	2.0	2.0	ug/L			05/14/12 10:55	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/14/12 10:55	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/14/12 10:55	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/14/12 10:55	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/14/12 10:55	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/14/12 10:55	1
Benzene	0.080	U	1.0	0.080	ug/L			05/14/12 10:55	1
1,2-Dichloroethane	0.14	U	1.0	0.14				05/14/12 10:55	1
Trichloroethene	0.18	U	1.0	0.18				05/14/12 10:55	1
1,1,1-Trichloroethane	0.15		1.0	0.15	_			05/14/12 10:55	1
1,1-Dichloroethane	0.11		1.0	0.11	_			05/14/12 10:55	1
1,2-Dichloropropane	0.16	U	1.0	0.16	30000000			05/14/12 10:55	1
2,2-Dichloropropane	0.13		1.0	0.13	-			05/14/12 10:55	1
Dibromomethane	0.52		1.0	0.52	_			05/14/12 10:55	1
Chloroform	0.13		1.0	0.13				05/14/12 10:55	
Bromodichloromethane	0.16		1.0	0.16	-			05/14/12 10:55	1
1,1-Dichloropropene	0.21		1.0	0.21	_			05/14/12 10:55	1
cis-1,3-Dichloropropene	0.18		1.0	0.18				05/14/12 10:55	1
4-Methyl-2-pentanone (MIBK)	0.45		2.0	0.45	-			05/14/12 10:55	1
Toluene	0.15		1.0	0.15	-			05/14/12 10:55	1
trans-1,3-Dichloropropene	0.13		1.0	0.13				05/14/12 10:55	1
1,1,2-Trichloroethane	0.21		1.0	0.28				05/14/12 10:55	1
					-				1
Tetrachloroethene	0.13		1.0	0.13				05/14/12 10:55	
1,3-Dichloropropane	0.22 0.35		1.0		ug/L			05/14/12 10:55	1
2-Hexanone			2.0		ug/L			05/14/12 10:55	1
Dibromochloromethane	0.15		1.0	0.15				05/14/12 10:55	1
1,2-Dibromoethane	0.18		1.0	0.18	-			05/14/12 10:55	1
Chlorobenzene	0.12		1.0	0.12	•			05/14/12 10:55	1
1,1,1,2-Tetrachloroethane	0.18		1.0	0.18				05/14/12 10:55	1
Ethylbenzene	0.11		1.0	0.11				05/14/12 10:55	1
Xylenes, Total	0.26		1.0	0.26	-			05/14/12 10:55	1
Styrene	0.070		1.0	0.070	a Journale			05/14/12 10:55	1
Bromoform	0.19		1.0	0.19				05/14/12 10:55	1
Isopropylbenzene	0.18		1.0	0.18				05/14/12 10:55	1
Bromobenzene	0.19		1.0	0.19				05/14/12 10:55	1
1,2,3-Trichloropropane	0.29		1.0	0.29				05/14/12 10:55	1
1,1,2,2-Tetrachloroethane	0.22		1.0	0.22	ug/L			05/14/12 10:55	1
N-Propylbenzene	0.15		1.0	0.15	ug/L			05/14/12 10:55	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79199/4

Client: Pastor, Behling & Wheeler LLC

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Method Blank Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/14/12 10:55	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/14/12 10:55	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/14/12 10:55	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/14/12 10:55	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/14/12 10:55	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/14/12 10:55	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/14/12 10:55	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/14/12 10:55	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/14/12 10:55	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/14/12 10:55	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/14/12 10:55	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/14/12 10:55	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/14/12 10:55	1

MB MB Prepared Dil Fac Surrogate %Recovery Qualifier Limits Analyzed 4-Bromofluorobenzene 99 67 - 139 05/14/12 10:55 Dibromofluoromethane 88 62 - 130 05/14/12 10:55 Toluene-d8 (Surr) 90 70 - 130 05/14/12 10:55 05/14/12 10:55 1,2-Dichloroethane-d4 (Surr) 50 - 134 85

Lab Sample ID: LCS 600-79199/3

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	10.0	38.0	*	ug/L		380	12 - 136
Chloromethane	10.0	15.9	*	ug/L		159	32 - 151
Vinyl chloride	10.0	14.0		ug/L		140	47 - 146
Bromomethane	10.0	13.7		ug/L		137	52 - 146
Chloroethane	10.0	13.0		ug/L		130	56 - 144
Trichlorofluoromethane	10.0	14.2		ug/L		142	55 ₋ 142
1,1-Dichloroethene	10.0	11.5		ug/L		115	59 - 145
rans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 132
Methyl tert-butyl ether	10.0	8.67		ug/L		87	63 - 142
Acetone	20.0	17.9		ug/L		89	28 - 152
odomethane	10.0	9.38		ug/L		94	17 - 197
Carbon disulfide	10.0	10.9		ug/L		109	32 - 177
Methylene Chloride	10.0	9.45		ug/L		95	62 - 134
cis-1,2-Dichloroethene	10.0	9.05		ug/L		91	69 - 129
2-Butanone (MEK)	20.0	15.3		ug/L		77	59 ₋ 133
Carbon tetrachloride	10.0	12.3		ug/L		123	59 ₋ 147
Benzene	10.0	9.59		ug/L		96	69 - 131
1,2-Dichloroethane	10.0	9.81		ug/L		98	66 - 140
Trichloroethene	10.0	9.45		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	11.3		ug/L		113	65 - 142
1,1-Dichloroethane	10.0	10.0		ug/L		100	66 - 126
1,2-Dichloropropane	10.0	9.81		ug/L		98	72 - 125
2,2-Dichloropropane	10.0	13.0		ug/L		130	43 - 169

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Spike

LCS LCS

TestAmerica Job ID: 600-54839-1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79199/3

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

%Rec.

	Spike	LUS	LUS		%Rec.	
Analyte	Added	Result	Qualifier Unit	D %Rec	Limits	
Dibromomethane	10.0	10.2	ug/L	102	68 - 134	
Chloroform	10.0	9.71	ug/L	97	69 _ 128	
Bromodichloromethane	10.0	10.6	ug/L	106	73 - 130	
1,1-Dichloropropene	10.0	10.0	ug/L	100	59 - 134	
cis-1,3-Dichloropropene	10.0	11.3	ug/L	113	60 _ 135	
4-Methyl-2-pentanone (MIBK)	20.0	18.5	ug/L	92	56 - 142	
Toluene	10.0	9.63	ug/L	96	67 _ 130	
trans-1,3-Dichloropropene	10.0	12.3	ug/L	123	63 - 133	
1,1,2-Trichloroethane	10.0	9.47	ug/L	95	68 - 130	
Tetrachloroethene	10.0	9.65	ug/L	96	61 - 142	
1,3-Dichloropropane	10.0	9.06	ug/L	91	62 - 132	
2-Hexanone	20.0	17.8	ug/L	89	51 ₋ 130	
Dibromochloromethane	10.0	11.3	ug/L	113	58 ₋ 132	
1,2-Dibromoethane	10.0	9.83	ug/L	98	68 - 128	
Chlorobenzene	10.0	9.35	ug/L	93	60 _ 136	
1,1,1,2-Tetrachloroethane	10.0	10.9	ug/L	109	57 - 136	
Ethylbenzene	10.0	9.50	ug/L	95	68 - 128	
Xylenes, Total	30.0	28.7	ug/L	96	68 - 132	
Styrene	10.0	9.84	ug/L	98	68 - 133	
Bromoform	10.0	12.0	ug/L	120	39 - 149	
Isopropylbenzene	10.0	11.1	ug/L	111	79 - 146	
Bromobenzene	10.0	9.18	ug/L	92	61 - 134	
1,2,3-Trichloropropane	10.0	8.67	ug/L	87	52 - 157	
1,1,2,2-Tetrachloroethane	10.0	9.91	ug/L	99	68 - 134	
N-Propylbenzene	10.0	9.89	ug/L	99	61 ₋ 137	
2-Chlorotoluene	10.0	9.27	ug/L	93	58 - 135	
4-Chlorotoluene	10.0	9.73	ug/L	97	64 - 134	
1,3,5-Trimethylbenzene	10.0	9.52	ug/L	95	63 - 132	
tert-Butylbenzene	10.0	10.7	ug/L	107	67 - 148	
4-Isopropyltoluene	10.0	10.5	ug/L	105	63 - 138	
1,2,4-Trimethylbenzene	10.0	9.53	ug/L	95	63 - 131	
sec-Butylbenzene	10.0	9.91	ug/L	99	61 - 134	
1,3-Dichlorobenzene	10.0	9.46	ug/L	95	71 - 132	
1,4-Dichlorobenzene	10.0	9.70	ug/L	97	72 ₋ 131	
1,2-Dichlorobenzene	10.0	9.22	ug/L	92	71 - 133	
n-Butylbenzene	10.0	10.4	ug/L	104	62 - 132	
1,2-Dibromo-3-Chloropropane	10.0	16.5	* ug/L	165	43 - 141	
1,2,4-Trichlorobenzene	10.0	9.65	ug/L	96	55 ₋ 151	
Hexachlorobutadiene	10.0	9.96	ug/L	100	53 ₋ 140	
Naphthalene	10.0	10.1	ug/L	101	19 - 195	

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	101		67 - 139
Dibromofluoromethane	91		62 - 130
Toluene-d8 (Surr)	89		70 - 130
1,2-Dichloroethane-d4 (Surr)	82		50 - 134

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: MB 600-79279/4

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Method Blank

Prep Type: Total/NA

Matrix: Water
Analysis Batch: 79279

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/15/12 00:36	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 00:36	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 00:36	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 00:36	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 00:36	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 00:36	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 00:36	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090				05/15/12 00:36	1
Methyl tert-butyl ether	0.12	U	1.0	0.12				05/15/12 00:36	1
Acetone	0.99	U	5.0		ug/L			05/15/12 00:36	1
Iodomethane	2.0	U	2.0		ug/L			05/15/12 00:36	1
Carbon disulfide	0.24	U	2.0		ug/L			05/15/12 00:36	1
Methylene Chloride	0.15		5.0		ug/L			05/15/12 00:36	1
cis-1,2-Dichloroethene	0.060		1.0	0.060	-			05/15/12 00:36	1
2-Butanone (MEK)	0.76		2.0	0.76				05/15/12 00:36	1
Carbon tetrachloride	0.15		1.0	0.15				05/15/12 00:36	1
Benzene	0.080		1.0	0.080	-			05/15/12 00:36	1
1,2-Dichloroethane	0.14		1.0		ug/L			05/15/12 00:36	1
Trichloroethene	0.14		1.0		ug/L			05/15/12 00:36	' 1
	0.15				-			05/15/12 00:36	
1,1,1-Trichloroethane	0.15		1.0		ug/L				1
1,1-Dichloroethane			1.0	05-20-120-2	ug/L			05/15/12 00:36	1
1,2-Dichloropropane	0.16		1.0	0.16				05/15/12 00:36	1
2,2-Dichloropropane	0.13		1.0		ug/L			05/15/12 00:36	1
Dibromomethane	0.52		1.0		ug/L			05/15/12 00:36	1
Chloroform	0.13		1.0		ug/L			05/15/12 00:36	1
Bromodichloromethane	0.16		1.0		ug/L			05/15/12 00:36	1
1,1-Dichloropropene	0.21		1.0		ug/L			05/15/12 00:36	1
cis-1,3-Dichloropropene	0.18		1.0		ug/L			05/15/12 00:36	1
4-Methyl-2-pentanone (MIBK)	0.45		2.0		ug/L			05/15/12 00:36	1
Toluene	0.15		1.0	0.15	a Establish			05/15/12 00:36	1
trans-1,3-Dichloropropene	0.21		1.0		ug/L			05/15/12 00:36	1
1,1,2-Trichloroethane	0.28		1.0		ug/L			05/15/12 00:36	1
Tetrachloroethene	0.13		1.0		ug/L			05/15/12 00:36	1
1,3-Dichloropropane	0.22		1.0		ug/L			05/15/12 00:36	1
2-Hexanone	0.35		2.0	0.35	ug/L			05/15/12 00:36	1
Dibromochloromethane	0.15	U	1.0	0.15				05/15/12 00:36	1
1,2-Dibromoethane	0.18		1.0		ug/L			05/15/12 00:36	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 00:36	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 00:36	1
Ethylbenzene	0.11	U	1.0		ug/L			05/15/12 00:36	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 00:36	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 00:36	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 00:36	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 00:36	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 00:36	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 00:36	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 00:36	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 00:36	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 00:36	1

TestAmerica Houston 5/30/2012

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79279/4

Matrix: Water Analysis Batch: 79279

Analyte

4-Chlorotoluene

tert-Butylbenzene

4-Isopropyltoluene

sec-Butylbenzene

1,3-Dichlorobenzene

1,4-Dichlorobenzene

1,2-Dichlorobenzene

1,2,4-Trichlorobenzene

Hexachlorobutadiene

1,2-Dibromo-3-Chloropropane

n-Butylbenzene

Naphthalene

1,3,5-Trimethylbenzene

1,2,4-Trimethylbenzene

Client Sample ID: Method Blank Prep Type: Total/NA

05/15/12 00:36

05/15/12 00:36

05/15/12 00:36

MB MB Result Qualifier MQL (Adj) SDL Unit D Dil Fac Prepared Analyzed 0.14 U 1.0 0.14 ug/L 05/15/12 00:36 0.10 U 1.0 0.10 ug/L 05/15/12 00:36 0.080 U 1.0 0.080 ug/L 05/15/12 00:36 0.10 U 1.0 0.10 ug/L 05/15/12 00:36 0.14 U 1.0 0.14 ug/L 05/15/12 00:36 0.12 U 1.0 0.12 ug/L 05/15/12 00:36 0.13 U 1.0 0.13 ug/L 05/15/12 00:36 0.11 U 1.0 0.11 ug/L 05/15/12 00:36 0.10 U 1.0 0.10 ug/L 05/15/12 00:36 0.16 U 1.0 0.16 ug/L 05/15/12 00:36 0.81 U 1.0 0.81 ug/L 05/15/12 00:36 0.31 U 1.0 0.31 ug/L

0.17 ug/L

0.32 ug/L

мв мв

0.17 U

0.32 U

		2					
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99	·	67 - 139	·	 	05/15/12 00:36	1
Dibromofluoromethane	78		62 - 130			05/15/12 00:36	1
Toluene-d8 (Surr)	87		70 - 130			05/15/12 00:36	1
1,2-Dichloroethane-d4 (Surr)	75		50 - 134			05/15/12 00:36	1

1.0

1.0

Lab Sample ID: LCS 600-79279/3

Matrix: Water

Client Sample ID: La	b Control Sample
Pre	ep Type: Total/NA

Analysis Batch: 79279							
	Spike	LCS					%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	10.0	33.3	*	ug/L		333	12 - 136
Chloromethane	10.0	14.1		ug/L		141	32 - 151
Vinyl chloride	10.0	11.7		ug/L		117	47 - 146
Bromomethane	10.0	12.7		ug/L		127	52 - 146
Chloroethane	10.0	11.6		ug/L		116	56 - 144
Trichlorofluoromethane	10.0	12.9		ug/L		129	55 - 142
1,1-Dichloroethene	10.0	10.8		ug/L		108	59 - 145
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 132
Methyl tert-butyl ether	10.0	8.52		ug/L		85	63 - 142
Acetone	20.0	16.5		ug/L		83	28 - 152
lodomethane	10.0	9.16		ug/L		92	17 - 197
Carbon disulfide	10.0	10.4		ug/L		104	32 - 177
Methylene Chloride	10.0	9.32		ug/L		93	62 - 134
cis-1,2-Dichloroethene	10.0	8.80		ug/L		88	69 - 129
2-Butanone (MEK)	20.0	15.0		ug/L		75	59 ₋ 133
Carbon tetrachloride	10.0	10.9		ug/L		109	59 ₋ 147
Benzene	10.0	9.58		ug/L		96	69 - 131
1,2-Dichloroethane	10.0	9.77		ug/L		98	66 - 140
Trichloroethene	10.0	9.45		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	10.6		ug/L		106	65 - 142
1,1-Dichloroethane	10.0	9.75		ug/L		98	66 - 126
1,2-Dichloropropane	10.0	9.59		ug/L		96	72 - 125
2,2-Dichloropropane	10.0	10.1		ug/L		101	43 - 169

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79279/3

Matrix: Water

Analysis Batch: 79279

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS LCS	S		%Rec.	
Analyte	Added	Result Qua	alifier Unit	D %Rec	Limits	_
Dibromomethane	10.0	9.61	ug/L	96	68 - 134	
Chloroform	10.0	9.54	ug/L	95	69 - 128	
Bromodichloromethane	10.0	9.63	ug/L	96	73 - 130	
1,1-Dichloropropene	10.0	10.1	ug/L	101	59 - 134	
cis-1,3-Dichloropropene	10.0	9.73	ug/L	97	60 - 135	
4-Methyl-2-pentanone (MIBK)	20.0	18.2	ug/L	91	56 - 142	
Toluene	10.0	9.43	ug/L	94	67 - 130	
trans-1,3-Dichloropropene	10.0	10.7	ug/L	107	63 - 133	
1,1,2-Trichloroethane	10.0	9.42	ug/L	94	68 - 130	
Tetrachloroethene	10.0	13.0	ug/L	130	61 - 142	
1,3-Dichloropropane	10.0	9.10	ug/L	91	62 - 132	
2-Hexanone	20.0	18.1	ug/L	91	51 - 130	
Dibromochloromethane	10.0	9.71	ug/L	97	58 - 132	
1,2-Dibromoethane	10.0	9.66	ug/L	97	68 - 128	
Chlorobenzene	10.0	9.29	ug/L	93	60 - 136	
1,1,1,2-Tetrachloroethane	10.0	9.58	ug/L	96	57 - 136	
Ethylbenzene	10.0	9.33	ug/L	93	68 - 128	
Xylenes, Total	30.0	28.4	ug/L	95	68 _ 132	
Styrene	10.0	9.86	ug/L	99	68 - 133	
Bromoform	10.0	9.04	ug/L	90	39 - 149	
Isopropylbenzene	10.0	11.0	ug/L	110	79 - 146	
Bromobenzene	10.0	9.15	ug/L	91	61 - 134	
1,2,3-Trichloropropane	10.0	9.13	ug/L	91	52 - 157	
1,1,2,2-Tetrachloroethane	10.0	9.58	ug/L	96	68 - 134	
N-Propylbenzene	10.0	9.67	ug/L	97	61 - 137	
2-Chlorotoluene	10.0	9.50	ug/L	95	58 - 135	
4-Chlorotoluene	10.0	9.59	ug/L	96	64 - 134	
1,3,5-Trimethylbenzene	10.0	9.48	ug/L	95	63 - 132	
tert-Butylbenzene	10.0	10.1	ug/L	101	67 - 148	
4-Isopropyltoluene	10.0	10.4	ug/L	104	63 - 138	
1,2,4-Trimethylbenzene	10.0	9.45	ug/L	94	63 - 131	
sec-Butylbenzene	10.0	9.92	ug/L	99	61 - 134	
1,3-Dichlorobenzene	10.0	9.39	ug/L	94	71 - 132	
1,4-Dichlorobenzene	10.0	9.41	ug/L	94	72 - 131	
1,2-Dichlorobenzene	10.0	9.17	ug/L	92	71 - 133	
n-Butylbenzene	10.0	10.0	ug/L	100	62 - 132	
1,2-Dibromo-3-Chloropropane	10.0	13.4	ug/L	134	43 - 141	
1,2,4-Trichlorobenzene	10.0	10.3	ug/L	103	55 ₋ 151	
Hexachlorobutadiene	10.0	10.2	ug/L	102	53 _ 140	
Naphthalene	10.0	10.6	ug/L	106	19 _ 195	

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	98	N	67 - 139
Dibromofluoromethane	85		62 - 130
Toluene-d8 (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	80		50 - 134

TestAmerica Houston 5/30/2012

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: MB 600-79300/7

Project/Site: R&H Oil

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batch: 79300								Prep Type: I	OtaliiNA
7	МВ	МВ							
Analyte	Result	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/15/12 12:13	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 12:13	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 12:13	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 12:13	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 12:13	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 12:13	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 12:13	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 12:13	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/15/12 12:13	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 12:13	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 12:13	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 12:13	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 12:13	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 12:13	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 12:13	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 12:13	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 12:13	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 12:13	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	_			05/15/12 12:13	1
1,1-Dichloroethane	0.11		1.0	0.11				05/15/12 12:13	1
1,2-Dichloropropane	0.16	U	1.0	0.16				05/15/12 12:13	1
2,2-Dichloropropane	0.13		1.0	0.13	-			05/15/12 12:13	1
Dibromomethane	0.52	U	1.0	0.52	-			05/15/12 12:13	1
Chloroform	0.13	o de parte de la como d U	1.0	0.13				05/15/12 12:13	1
Bromodichloromethane	0.16	U	1.0	0.16	-			05/15/12 12:13	1
1,1-Dichloropropene	0.21	U	1.0	0.21	-			05/15/12 12:13	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	_			05/15/12 12:13	1
4-Methyl-2-pentanone (MIBK)	0.45		2.0	0.45				05/15/12 12:13	1
Toluene	0.15	U	1.0	0.15	_			05/15/12 12:13	1
trans-1,3-Dichloropropene	0.21		1.0	0.21	a President			05/15/12 12:13	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	-			05/15/12 12:13	1
Tetrachloroethene	0.13		1.0	0.13	•			05/15/12 12:13	1
1,3-Dichloropropane	0.22		1.0	0.22				05/15/12 12:13	1
2-Hexanone	0.35		2.0	0.35	_			05/15/12 12:13	1
Dibromochloromethane	0.15		1.0	0.15	•			05/15/12 12:13	1
1,2-Dibromoethane	0.18		1.0	0.18				05/15/12 12:13	
Chlorobenzene	0.12		1.0	0.12				05/15/12 12:13	1
1,1,1,2-Tetrachloroethane	0.18		1.0		ug/L			05/15/12 12:13	1
Ethylbenzene	0.11		1.0		ug/L			05/15/12 12:13	· 1
Xylenes, Total	0.26		1.0	0.26	-			05/15/12 12:13	1
Styrene	0.20		1.0	0.20	•			05/15/12 12:13	1
Bromoform	0.070		1.0	0.070				05/15/12 12:13	
Isopropylbenzene	0.19		1.0		ug/L ug/L			05/15/12 12:13	1
Bromobenzene	0.19		1.0		ug/L			05/15/12 12:13	1
									1 1
1,2,3-Trichloropropane	0.29		1.0		ug/L			05/15/12 12:13	
1,1,2,2-Tetrachloroethane	0.22		1.0	0.22	-			05/15/12 12:13	1
N-Propylbenzene	0.15		1.0		ug/L			05/15/12 12:13	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 12:13	1

TestAmerica Houston 5/30/2012

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79300/7

Client: Pastor, Behling & Wheeler LLC

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Method Blank Prep Type: Total/NA

мв мв Analyte Result Qualifier MQL (Adj) SDL Unit D Dil Fac Prepared Analyzed 4-Chlorotoluene 0.14 U 1.0 05/15/12 12:13 0.14 ug/L 1,3,5-Trimethylbenzene 0.10 U 1.0 0.10 ug/L 05/15/12 12:13 0.080 U 1.0 0.080 ug/L tert-Butylbenzene 05/15/12 12:13 4-Isopropyltoluene 0.10 U 1.0 0.10 ug/L 05/15/12 12:13 1,2,4-Trimethylbenzene 0.14 U 1.0 0.14 ug/L 05/15/12 12:13 sec-Butylbenzene 0.12 U 1.0 0.12 ug/L 05/15/12 12:13 0.13 ug/L 1,3-Dichlorobenzene 0.13 U 1.0 05/15/12 12:13 1,4-Dichlorobenzene 0.11 U 1.0 0.11 ug/L 05/15/12 12:13 1.2-Dichlorobenzene 0.10 U 1.0 0.10 ug/L 05/15/12 12:13 n-Butylbenzene 0.16 U 1.0 0.16 ug/L 05/15/12 12:13 0.81 U 1,2-Dibromo-3-Chloropropane 1.0 0.81 ug/L 05/15/12 12:13 0.31 U 1.0 1,2,4-Trichlorobenzene 0.31 ug/L 05/15/12 12:13 Hexachlorobutadiene 0.17 U 1.0 0.17 ug/L 05/15/12 12:13 Naphthalene 0.32 U 1.0 0.32 ug/L 05/15/12 12:13

MB MB

Surrogate	%Recovery	Qualifier Limit	s	Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	103	67 - 1	39	2 , -,-	05/15/12 12:13	1	
Dibromofluoromethane	81	62 - 1	30		05/15/12 12:13	1	
Toluene-d8 (Surr)	86	70 - 1	30		05/15/12 12:13	1	
1,2-Dichloroethane-d4 (Surr)	80	50 - 1	34		05/15/12 12:13	1	

Lab Sample ID: LCS 600-79300/5

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Alialysis Batch. 79300	0	1.00	LCS				%Rec.
Analyte	Spike Added		Qualifier	Unit	D	%Rec	%Rec.
Dichlorodifluoromethane		34.5	*	- :	—: - -:	345	12 - 136
				ug/L			
Chloromethane	10.0	15.1		ug/L		151	32 - 151
Vinyl chloride	10.0	13.0		ug/L		130	47 - 146
Bromomethane	10.0	13.0		ug/L		130	52 ₋ 146
Chloroethane	10.0	12.5		ug/L		125	56 - 144
Trichlorofluoromethane	10.0	13.5		ug/L		135	55 ₋ 142
1,1-Dichloroethene	10.0	11.2		ug/L		112	59 - 145
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	70 - 132
Methyl tert-butyl ether	10.0	8.87		ug/L		89	63 _ 142
Acetone	20.0	17.6		ug/L		88	28 - 152
lodomethane	10.0	9.68		ug/L		97	17 _ 197
Carbon disulfide	10.0	10.7		ug/L		107	32 - 177
Methylene Chloride	10.0	10.1		ug/L		101	62 _ 134
cis-1,2-Dichloroethene	10.0	9.32		ug/L		93	69 _ 129
2-Butanone (MEK)	20.0	16.8		ug/L		84	59 ₋ 133
Carbon tetrachloride	10.0	11.7		ug/L		117	59 - 147
Benzene	10.0	10.2		ug/L		102	69 - 131
1,2-Dichloroethane	10.0	10.3		ug/L		103	66 - 140
Trichloroethene	10.0	9.97		ug/L		100	68 - 130
1,1,1-Trichloroethane	10.0	11.1		ug/L		111	65 _ 142
1,1-Dichloroethane	10.0	10.6		ug/L		106	66 - 126
1,2-Dichloropropane	10.0	10.3		ug/L		103	72 - 125
2,2-Dichloropropane	10.0	12.3		ug/L		123	43 - 169

TestAmerica Houston 5/30/2012

Spike

LCS LCS

TestAmerica Job ID: 600-54839-1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79300/5

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

%Rec.

Analyte	Added	Result Qualifier	Unit	D %Rec	Limits	
Dibromomethane	10.0	10.4	ug/L	104	68 - 134	
Chloroform	10.0	10.3	ug/L	103	69 - 128	
Bromodichloromethane	10.0	9.81	ug/L	98	73 - 130	
1,1-Dichloropropene	10.0	10.5	ug/L	105	59 - 134	
cis-1,3-Dichloropropene	10.0	10.5	ug/L	105	60 - 135	
4-Methyl-2-pentanone (MIBK)	20.0	19.8	ug/L	99	56 - 142	
Toluene	10.0	9.91	ug/L	99	67 _ 130	
trans-1,3-Dichloropropene	10.0	11.5	ug/L	115	63 - 133	
1,1,2-Trichloroethane	10.0	9.99	ug/L	100	68 - 130	
Tetrachloroethene	10.0	10.1	ug/L	101	61 - 142	
1,3-Dichloropropane	10.0	9.80	ug/L	98	62 - 132	
2-Hexanone	20.0	19.3	ug/L	97	51 ₋ 130	
Dibromochloromethane	10.0	10.2	ug/L	102	58 - 132	
1,2-Dibromoethane	10.0	9.84	ug/L	98	68 - 128	
Chlorobenzene	10.0	9.70	ug/L	97	60 - 136	
1,1,1,2-Tetrachloroethane	10.0	9.78	ug/L	98	57 - 136	
Ethylbenzene	10.0	9.87	ug/L	99	68 - 128	
Xylenes, Total	30.0	30.1	ug/L	100	68 - 132	
Styrene	10.0	10.2	ug/L	102	68 - 133	
Bromoform	10.0	10.2	ug/L	102	39 - 149	
Isopropylbenzene	10.0	11.5	ug/L	115	79 - 146	
Bromobenzene	10.0	9.38	ug/L	94	61 - 134	
1,2,3-Trichloropropane	10.0	9.78	ug/L	98	52 - 157	
1,1,2,2-Tetrachloroethane	10.0	10.4	ug/L	104	68 - 134	
N-Propylbenzene	10.0	10.1	ug/L	101	61 - 137	
2-Chlorotoluene	10.0	9.77	ug/L	98	58 - 135	
4-Chlorotoluene	10.0	10.1	ug/L	101	64 - 134	
1,3,5-Trimethylbenzene	10.0	9.73	ug/L	97	63 - 132	
tert-Butylbenzene	10.0	10.7	ug/L	107	67 - 148	
4-Isopropyltoluene	10.0	10.8	ug/L	108	63 - 138	
1,2,4-Trimethylbenzene	10.0	9.87	ug/L	99	63 - 131	
sec-Butylbenzene	10.0	10.2	ug/L	102	61 - 134	
1,3-Dichlorobenzene	10.0	9.67	ug/L	97	71 - 132	
1,4-Dichlorobenzene	10.0	9.82	ug/L	98	72 _ 131	
1,2-Dichlorobenzene	10.0	9.56	ug/L	96	71 - 133	
n-Butylbenzene	10.0	10.5	ug/L	105	62 - 132	
1,2-Dibromo-3-Chloropropane	10.0	11.6	ug/L	116	43 - 141	
1,2,4-Trichlorobenzene	10.0	9.26	ug/L	93	55 ₋ 151	
Hexachlorobutadiene	10.0	9.10	ug/L	91	53 - 140	
Naphthalene	10.0	9.04	ug/L	90	19 - 195	

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	99	-	67 - 139
Dibromofluoromethane	82		62 - 130
Toluene-d8 (Surr)	87		70 - 130
1 2-Dichloroethane-d4 (Surr)	77		50 134

TestAmerica Houston 5/30/2012

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Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: MB 600-79383/4

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Method Blank

Matrix: Water

Client S	Sample	ID: N	lethod	Blank
	Pre	р Ту	pe: To	tal/NA

	MB	MB							
Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12		1.0		ug/L			05/16/12 00:54	1
Chloromethane	0.18		2.0		ug/L			05/16/12 00:54	1
Vinyl chloride	0.11		2.0		ug/L			05/16/12 00:54	1
Bromomethane	0.25		2.0	0.25	-			05/16/12 00:54	1
Chloroethane	0.080		2.0	0.080				05/16/12 00:54	1
Trichlorofluoromethane	0.080	U	1.0	0.080				05/16/12 00:54	1
1,1-Dichloroethene	0.19		1.0	0.19				05/16/12 00:54	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/16/12 00:54	1
Methyl tert-butyl ether	0.12	U	1.0		ug/L			05/16/12 00:54	1
Acetone	0.99	U	5.0		ug/L			05/16/12 00:54	1
lodomethane	2.0	U	2.0	2.0	ug/L			05/16/12 00:54	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/16/12 00:54	1
Methylene Chloride	0.15	U	5.0		ug/L			05/16/12 00:54	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/16/12 00:54	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/16/12 00:54	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
Benzene	0.080	U	1.0	0.080	ug/L			05/16/12 00:54	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/16/12 00:54	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/16/12 00:54	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/16/12 00:54	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/16/12 00:54	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/16/12 00:54	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 00:54	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/16/12 00:54	1
Toluene	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 00:54	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/16/12 00:54	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/16/12 00:54	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/16/12 00:54	1
Dibromochloromethane	0.15	U	1.0		ug/L			05/16/12 00:54	1
1,2-Dibromoethane	0.18	Ü	1.0	0.18	ug/L			05/16/12 00:54	1
Chlorobenzene	0.12	U	1.0		ug/L			05/16/12 00:54	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/16/12 00:54	1
Xylenes, Total	0.26	U	1.0		ug/L			05/16/12 00:54	1
Styrene	0.070	U	1.0	0.070	ug/L			05/16/12 00:54	1
Bromoform	0.19	U	1.0		ug/L			05/16/12 00:54	1
Isopropylbenzene	0.18	U	1.0		ug/L			05/16/12 00:54	1
Bromobenzene	0.19		1.0		ug/L			05/16/12 00:54	1
1,2,3-Trichloropropane	0.29		1.0		ug/L			05/16/12 00:54	· 1
1,1,2,2-Tetrachloroethane	0.22		1.0		ug/L			05/16/12 00:54	1
N-Propylbenzene	0.15		1.0		ug/L			05/16/12 00:54	1
2-Chlorotoluene	0.13		1.0		ug/L			05/16/12 00:54	· 1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

MB MB

Lab Sample ID: MB 600-79383/4 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 79383

	INID	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/16/12 00:54	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/16/12 00:54	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/16/12 00:54	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/16/12 00:54	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/16/12 00:54	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/16/12 00:54	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 00:54	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 00:54	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/16/12 00:54	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 00:54	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/16/12 00:54	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/16/12 00:54	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/16/12 00:54	1

MB MB %Recovery Qualifier Dil Fac Surrogate Limits Prepared Analyzed 4-Bromofluorobenzene 102 67 - 139 05/16/12 00:54 05/16/12 00:54 Dibromofluoromethane 80 62 - 130 Toluene-d8 (Surr) 87 70 - 130 05/16/12 00:54 1,2-Dichloroethane-d4 (Surr) 50 - 134 05/16/12 00:54 78

Lab Sample ID: LCS 600-79383/3

Matrix: Water

Analysis Batch: 79383							
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	10.0	30.0	*	ug/L	30 75 30	300	12 _ 136
Chloromethane	10.0	13.5		ug/L		135	32 - 151
Vinyl chloride	10.0	11.1		ug/L		111	47 _ 146
Bromomethane	10.0	11.4		ug/L		114	52 - 146
Chloroethane	10.0	11.1		ug/L		111	56 - 144
Trichlorofluoromethane	10.0	11.9		ug/L		119	55 - 142
1,1-Dichloroethene	10.0	10.2		ug/L		102	59 - 145
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	70 - 132
Methyl tert-butyl ether	10.0	8.94		ug/L		89	63 - 142
Acetone	20.0	18.0		ug/L		90	28 - 152
lodomethane	10.0	8.96		ug/L		90	17 ₋ 197
Carbon disulfide	10.0	10.4		ug/L		104	32 - 177
Methylene Chloride	10.0	9.61		ug/L		96	62 - 134
cis-1,2-Dichloroethene	10.0	9.09		ug/L		91	69 - 129
2-Butanone (MEK)	20.0	17.2		ug/L		86	59 ₋ 133
Carbon tetrachloride	10.0	10.4		ug/L		104	59 - 147
Benzene	10.0	9.61		ug/L		96	69 - 131
1,2-Dichloroethane	10.0	9.77		ug/L		98	66 - 140
Trichloroethene	10.0	9.36		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	10.1		ug/L		101	65 - 142
1,1-Dichloroethane	10.0	9.91		ug/L		99	66 - 126
1,2-Dichloropropane	10.0	9.56		ug/L		96	72 - 125
2,2-Dichloropropane	10.0	9.26		ug/L		93	43 - 169

TestAmerica Job ID: 600-54839-1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79383/3

Matrix: Water

Analysis Batch: 79383

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Dibromomethane	10.0	9.68		ug/L		97	68 - 134
Chloroform	10.0	9.85		ug/L		99	69 - 128
Bromodichloromethane	10.0	9.21		ug/L		92	73 _ 130
1,1-Dichloropropene	10.0	9.96		ug/L		100	59 - 134
cis-1,3-Dichloropropene	10.0	9.72		ug/L		97	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	18.9		ug/L		94	56 - 142
Toluene	10.0	9.69		ug/L		97	67 - 130
trans-1,3-Dichloropropene	10.0	10.1		ug/L		101	63 - 133
1,1,2-Trichloroethane	10.0	9.94		ug/L		99	68 - 130
Tetrachloroethene	10.0	14.2		ug/L		142	61 - 142
1,3-Dichloropropane	10.0	9.57		ug/L		96	62 - 132
2-Hexanone	20.0	19.1		ug/L		95	51 - 130
Dibromochloromethane	10.0	9.27		ug/L		93	58 - 132
1,2-Dibromoethane	10.0	9.28		ug/L		93	68 - 128
Chlorobenzene	10.0	9.22		ug/L		92	60 - 136
1,1,1,2-Tetrachloroethane	10.0	9.37		ug/L		94	57 - 136
Ethylbenzene	10.0	9.37		ug/L		94	68 - 128
Xylenes, Total	30.0	28.9		ug/L		96	68 - 132
Styrene	10.0	9.72		ug/L		97	68 - 133
Bromoform	10.0	8.41		ug/L		84	39 - 149
Isopropylbenzene	10.0	11.2		ug/L		112	79 - 146
Bromobenzene	10.0	9.14		ug/L		91	61 - 134
1,2,3-Trichloropropane	10.0	8.84		ug/L		88	52 - 157
1,1,2,2-Tetrachloroethane	10.0	9.89		ug/L		99	68 - 134
N-Propylbenzene	10.0	9.75		ug/L		97	61 - 137
2-Chlorotoluene	10.0	9.53		ug/L		95	58 - 135
4-Chlorotoluene	10.0	9.69		ug/L		97	64 - 134
1,3,5-Trimethylbenzene	10.0	9.43		ug/L		94	63 - 132
tert-Butylbenzene	10.0	10.1		ug/L		101	67 - 148
4-Isopropyltoluene	10.0	10.4		ug/L		104	63 - 138
1,2,4-Trimethylbenzene	10.0	9.62		ug/L		96	63 - 131
sec-Butylbenzene	10.0	9.90		ug/L		99	61 - 134
1,3-Dichlorobenzene	10.0	9.49		ug/L		95	71 - 132
1,4-Dichlorobenzene	10.0	9.46		ug/L		95	72 ₋ 131
1,2-Dichlorobenzene	10.0	9.43		ug/L		94	71 ₋ 133
n-Butylbenzene	10.0	9.83		ug/L		98	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	11.6		ug/L		116	43 - 141
1,2,4-Trichlorobenzene	10.0	10.3		ug/L		103	55 ₋ 151
Hexachlorobutadiene	10.0	9.86		ug/L		99	53 - 140
Naphthalene	10.0	10.7		ug/L		107	19 - 195

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	100	N	67 - 139
Dibromofluoromethane	83		62 - 130
Toluene-d8 (Surr)	88		70 - 130
1,2-Dichloroethane-d4 (Surr)	79		50 - 134

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79394/4 Client Sample ID: Method Blank **Prep Type: Total/NA**

Matrix: Water

	MB	МВ							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L	2 =2 2		05/16/12 13:24	2
Chloromethane	0.18	U	2.0	0.18	ug/L			05/16/12 13:24	
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/16/12 13:24	
Bromomethane	0.25	U	2.0	0.25	ug/L			05/16/12 13:24	
Chloroethane	0.080	U	2.0	0.080	ug/L			05/16/12 13:24	
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/16/12 13:24	
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/16/12 13:24	
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/16/12 13:24	
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/16/12 13:24	
Acetone	0.99	U	5.0	0.99	ug/L			05/16/12 13:24	
odomethane	2.0	U	2.0	2.0	ug/L			05/16/12 13:24	
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/16/12 13:24	
Methylene Chloride	0.15	Ú	5.0	0.15	ug/L			05/16/12 13:24	
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/16/12 13:24	
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/16/12 13:24	
Carbon tetrachloride	0.15	U	1.0	0.15				05/16/12 13:24	
Benzene	0.080	U	1.0	0.080	ug/L			05/16/12 13:24	
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/16/12 13:24	
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/16/12 13:24	
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/16/12 13:24	
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/16/12 13:24	52,562,566
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/16/12 13:24	
Chloroform	0.13	Ū	1.0	0.13	ug/L			05/16/12 13:24	
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/16/12 13:24	
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 13:24	
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/16/12 13:24	
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/16/12 13:24	
Toluene	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 13:24	
I,1,2-Trichloroethane	0.28	U	1.0		ug/L			05/16/12 13:24	
Γetrachloroethene	0.13	U	1.0		ug/L			05/16/12 13:24	
1,3-Dichloropropane	0.22	U	1.0		ug/L			05/16/12 13:24	3395396
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/16/12 13:24	
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	
I,2-Dibromoethane	0.18	Ü	1.0		ug/L			05/16/12 13:24	
Chlorobenzene	0.12		1.0		ug/L			05/16/12 13:24	
I,1,1,2-Tetrachloroethane	0.18		1.0		ug/L			05/16/12 13:24	
thylbenzene	0.11		1.0		ug/L			05/16/12 13:24	
Kylenes, Total	0.26	U	1.0		ug/L			05/16/12 13:24	
Styrene	0.070	U	1.0	0.070	-			05/16/12 13:24	
Bromoform	0.19		1.0	0.19	a Journal			05/16/12 13:24	
sopropylbenzene	0.18		1.0		ug/L			05/16/12 13:24	
Bromobenzene	0.19		1.0		ug/L			05/16/12 13:24	
I,2,3-Trichloropropane	0.29		1.0		ug/L			05/16/12 13:24	enere.
1,1,2,2-Tetrachloroethane	0.22		1.0		ug/L			05/16/12 13:24	
N-Propylbenzene	0.15		1.0		ug/L			05/16/12 13:24	
2-Chlorotoluene	0.13		1.0		ug/L			05/16/12 13:24	

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: MB 600-79394/4

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Water

Analysis Batch: 79394

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/16/12 13:24	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/16/12 13:24	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/16/12 13:24	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/16/12 13:24	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/16/12 13:24	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/16/12 13:24	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 13:24	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 13:24	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/16/12 13:24	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 13:24	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/16/12 13:24	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/16/12 13:24	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/16/12 13:24	1

MB MB Dil Fac Surrogate %Recovery Qualifier Limits Prepared Analyzed 4-Bromofluorobenzene 100 67 - 139 05/16/12 13:24 Dibromofluoromethane 82 62 - 130 05/16/12 13:24 Toluene-d8 (Surr) 84 70 - 130 05/16/12 13:24 1,2-Dichloroethane-d4 (Surr) 50 - 134 05/16/12 13:24 80

Lab Sample ID: LCS 600-79394/3

Matrix: Water Analysis Batch: 79394 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	10.0	31.2	*	ug/L		312	12 - 136
Chloromethane	10.0	14.8		ug/L		148	32 - 151
Vinyl chloride	10.0	12.2		ug/L		122	47 _ 146
Bromomethane	10.0	12.6		ug/L		126	52 ₋ 146
Chloroethane	10.0	11.6		ug/L		116	56 ₋ 144
Trichlorofluoromethane	10.0	12.4		ug/L		124	55 - 142
1,1-Dichloroethene	10.0	10.4		ug/L		104	59 - 145
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 132
Methyl tert-butyl ether	10.0	9.20		ug/L		92	63 - 142
Acetone	20.0	15.9		ug/L		80	28 - 152
lodomethane	10.0	9.30		ug/L		93	17 ₋ 197
Carbon disulfide	10.0	10.3		ug/L		103	32 - 177
Methylene Chloride	10.0	10.3		ug/L		103	62 - 134
cis-1,2-Dichloroethene	10.0	9.27		ug/L		93	69 - 129
2-Butanone (MEK)	20.0	15.5		ug/L		77	59 - 133
Carbon tetrachloride	10.0	11.1		ug/L		111	59 - 147
Benzene	10.0	9.45		ug/L		94	69 - 131
1,2-Dichloroethane	10.0	10.2		ug/L		102	66 - 140
Trichloroethene	10.0	9.35		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	10.7		ug/L		107	65 _ 142
1,1-Dichloroethane	10.0	10.0		ug/L		100	66 - 126
1,2-Dichloropropane	10.0	9.67		ug/L		97	72 - 125
2,2-Dichloropropane	10.0	11.2		ug/L		112	43 - 169

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79394/3

Matrix: Water Analysis Batch: 79394 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Analysis Balcii. 79394	Spike	LCS	LCS				%Rec.	
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	
Dibromomethane	10.0	9.58	V	ug/L		96	68 - 134	
Chloroform	10.0	9.65		ug/L		96	69 - 128	
Bromodichloromethane	10.0	9.71		ug/L		97	73 _ 130	
1,1-Dichloropropene	10.0	9.59		ug/L		96	59 - 134	
cis-1,3-Dichloropropene	10.0	9.95		ug/L		100	60 _ 135	
4-Methyl-2-pentanone (MIBK)	20.0	19.3		ug/L		97	56 - 142	
Toluene	10.0	9.15		ug/L		91	67 _ 130	
trans-1,3-Dichloropropene	10.0	10.6		ug/L		106	63 - 133	
1,1,2-Trichloroethane	10.0	9.57		ug/L		96	68 - 130	
Tetrachloroethene	10.0	9.34		ug/L		93	61 - 142	
1,3-Dichloropropane	10.0	9.45		ug/L		95	62 - 132	
2-Hexanone	20.0	18.7		ug/L		94	51 - 130	
Dibromochloromethane	10.0	9.83		ug/L		98	58 - 132	
1,2-Dibromoethane	10.0	9.56		ug/L		96	68 - 128	
Chlorobenzene	10.0	9.10		ug/L		91	60 - 136	
1,1,1,2-Tetrachloroethane	10.0	9.55		ug/L		96	57 - 136	
Ethylbenzene	10.0	9.08		ug/L		91	68 - 128	
Xylenes, Total	30.0	27.5		ug/L		92	68 - 132	
Styrene	10.0	9.60		ug/L		96	68 - 133	
Bromoform	10.0	9.75		ug/L		98	39 - 149	
Isopropylbenzene	10.0	10.7		ug/L		107	79 - 146	
Bromobenzene	10.0	8.83		ug/L		88	61 - 134	
1,2,3-Trichloropropane	10.0	9.20		ug/L		92	52 _ 157	
1,1,2,2-Tetrachloroethane	10.0	9.94		ug/L		99	68 - 134	
N-Propylbenzene	10.0	9.29		ug/L		93	61 - 137	
2-Chlorotoluene	10.0	9.01		ug/L		90	58 - 135	
4-Chlorotoluene	10.0	9.38		ug/L		94	64 - 134	
1,3,5-Trimethylbenzene	10.0	9.17		ug/L		92	63 - 132	
tert-Butylbenzene	10.0	9.96		ug/L		100	67 - 148	
4-Isopropyltoluene	10.0	9.93		ug/L		99	63 - 138	
1,2,4-Trimethylbenzene	10.0	9.18		ug/L		92	63 - 131	
sec-Butylbenzene	10.0	9.32		ug/L		93	61 - 134	
1,3-Dichlorobenzene	10.0	9.30		ug/L		93	71 - 132	
1,4-Dichlorobenzene	10.0	9.09		ug/L		91	72 - 131	
1,2-Dichlorobenzene	10.0	9.08		ug/L		91	71 - 133	
n-Butylbenzene	10.0	9.60		ug/L		96	62 - 132	
1,2-Dibromo-3-Chloropropane	10.0	13.0		ug/L		130	43 - 141	
1,2,4-Trichlorobenzene	10.0	9.96		ug/L		100	55 - 151	
Hexachlorobutadiene	10.0	9.11		ug/L		91	53 - 140	
Naphthalene	10.0	10.4		ug/L		104	19 - 195	
	10.0	10.4		<i>ug,∟</i>		10-	.0 - 100	

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	100	N	67 - 139
Dibromofluoromethane	85		62 - 130
Toluene-d8 (Surr)	85		70 - 130
1,2-Dichloroethane-d4 (Surr)	80		50 - 134

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: MB 600-79230/1-A

Project/Site: R&H Oil

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Client Sample ID: Method Blank Prep Type: Total/NA

Analysis Batch: 79549								Prep Batcl	
Analysis Batch. 75045	МВ	MB						i iep Batci	1. 73230
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.080	U	1.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
Phenol	0.040	U	1.5	0.040	ug/L		05/14/12 16:21	05/17/12 17:44	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/17/12 17:44	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/14/12 16:21	05/17/12 17:44	1
Benzyl alcohol	0.17	U	5.5	0.17	ug/L		05/14/12 16:21	05/17/12 17:44	1
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/14/12 16:21	05/17/12 17:44	1
3 & 4 Methylphenol	0.20	U	1.0	0.20	ug/L		05/14/12 16:21	05/17/12 17:44	1
N-Nitrosodi-n-propylamine	0.10	U	2.5	0.10	ug/L		05/14/12 16:21	05/17/12 17:44	1
Hexachloroethane	0.10	U	2.0	0.10	ug/L		05/14/12 16:21	05/17/12 17:44	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/17/12 17:44	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/17/12 17:44	1
2-Nitrophenol	0.22	U	1.0	0.22	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/14/12 16:21	05/17/12 17:44	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/14/12 16:21	05/17/12 17:44	1
4-Chloroaniline	0.21	U	1.0	0.21	ug/L		05/14/12 16:21	05/17/12 17:44	1
4-Chloro-3-methylphenol	0.17	U	1.0	0.17	ug/L		05/14/12 16:21	05/17/12 17:44	1
2-Methylnaphthalene	0.070	U	1.5	0.070	ug/L		05/14/12 16:21	05/17/12 17:44	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/14/12 16:21	05/17/12 17:44	1
2-Chloronaphthalene	0.080	U	1.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
2-Nitroaniline	0.19	U	2.5	0.19	_		05/14/12 16:21	05/17/12 17:44	1
Dimethyl phthalate	0.070	U	2.5	0.070			05/14/12 16:21	05/17/12 17:44	1
Acenaphthylene	0.060	U	1.0	0.060	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,6-Dinitrotoluene	0.080	U	1.0	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/14/12 16:21	05/17/12 17:44	1
Acenaphthene	0.080	U	1.0	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,4-Dinitrophenol	0.39	U	5.0		ug/L		05/14/12 16:21	05/17/12 17:44	1
4-Nitrophenol	0.56	U	2.5	0.56	ug/L		05/14/12 16:21	05/17/12 17:44	1
Dibenzofuran	0.080	U	1.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/17/12 17:44	1
Diethyl phthalate	1.5	U	2.5		ug/L		05/14/12 16:21	05/17/12 17:44	1
4-Chlorophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/14/12 16:21	05/17/12 17:44	1
Fluorene	0.070	U	1.5	0.070	ug/L		05/14/12 16:21	05/17/12 17:44	1
4-Nitroaniline	0.25	U	2.5		ug/L		05/14/12 16:21	05/17/12 17:44	1
4,6-Dinitro-2-methylphenol	0.83		2.5		ug/L		05/14/12 16:21	05/17/12 17:44	1
4-Bromophenyl phenyl ether	0.10		1.5		ug/L		05/14/12 16:21	05/17/12 17:44	1
Hexachlorobenzene	0.11		1.5		ug/L		05/14/12 16:21	05/17/12 17:44	1
Pentachlorophenol	0.61		2.5		ug/L		05/14/12 16:21	05/17/12 17:44	1
Phenanthrene	0.060		1.5	0.060	_		05/14/12 16:21	05/17/12 17:44	1
Anthracene	0.050		1.0	0.050			05/14/12 16:21	05/17/12 17:44	1
Di-n-butyl phthalate	0.11		2.5		ug/L		05/14/12 16:21	05/17/12 17:44	1
Fluoranthene	0.070		2.5	0.070			05/14/12 16:21	05/17/12 17:44	1
Pyrene	0.11		2.0		ug/L		05/14/12 16:21	05/17/12 17:44	1
Butyl benzyl phthalate	0.11		2.5		ug/L		05/14/12 16:21	05/17/12 17:44	::::::::::::::::::::::::::::::::::::::
3,3'-Dichlorobenzidine	0.12		10		ug/L		05/14/12 16:21	05/17/12 17:44	1
Benzo[a]anthracene	0.080		2.0	0.18	-		05/14/12 16:21	05/17/12 17:44	1

Bis(2-ethylhexyl) phthalate	0.37	U	2.5	0.37	ug/L		05/14/12 16:21	05/17/12 17:44	1

TestAmerica Houston 5/30/2012

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-79230/1-A

Client: Pastor, Behling & Wheeler LLC

Matrix: Water

Analysis Batch: 79549

Bis(2-chloroisopropyl) ether

N-Nitrosodi-n-propylamine

3 & 4 Methylphenol

Hexachloroethane

2,4-Dimethylphenol

2,4-Dichlorophenol

4-Chloroaniline

Bis(2-chloroethoxy)methane

4-Chloro-3-methylphenol

Hexachlorocyclopentadiene

2-Methylnaphthalene

2,4,6-Trichlorophenol

2,4,5-Trichlorophenol

2-Chloronaphthalene

Dimethyl phthalate

Acenaphthylene

3-Nitroaniline

2,6-Dinitrotoluene

2-Nitroaniline

Nitrobenzene

2-Nitrophenol

Isophorone

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 79230

	IVID	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.080	U	1.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
Di-n-octyl phthalate	0.16	U	5.0	0.16	ug/L		05/14/12 16:21	05/17/12 17:44	1
Benzo[b]fluoranthene	0.070	U	2.0	0.070	ug/L		05/14/12 16:21	05/17/12 17:44	1
Benzo[k]fluoranthene	0.090	U	2.0	0.090	ug/L		05/14/12 16:21	05/17/12 17:44	1
Benzo[a]pyrene	0.080	U	1.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
Indeno[1,2,3-cd]pyrene	0.070	U	2.0	0.070	ug/L		05/14/12 16:21	05/17/12 17:44	1
Dibenz(a,h)anthracene	0.080	U	2.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
Benzo[g,h,i]perylene	0.080	U	2.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	70		10 - 94	05/14/12 16:21	05/17/12 17:44	1
2,4,6-Tribromophenol	64		10 - 123	05/14/12 16:21	05/17/12 17:44	1
2-Fluorobiphenyl	79		43 - 116	05/14/12 16:21	05/17/12 17:44	1
2-Fluorophenol	66		10 - 100	05/14/12 16:21	05/17/12 17:44	1
Nitrobenzene-d5	75		35 - 114	05/14/12 16:21	05/17/12 17:44	1
Terphenyl-d14	73		33 - 141	05/14/12 16:21	05/17/12 17:44	1

41 - 111

27 - 113

39 - 124

43 - 118

42 - 119

42 - 116

40 - 121

36 - 109

42 - 119

39 - 118

19 - 129

44 - 131

40 - 121

21 - 126

39 - 123

38 - 145

43 - 120

42 - 130

49 - 121

35 - 135

45 - 122

47 - 138

68

89

82

78

72

75

78

79

80

83

76

84

80

57

84

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77

87

81

84

75

ab Sample ID: LCS 600-79230/2-A						Client Sample ID: Lab Control Sample			
Matrix: Water							Prep Ty	pe: Total/NA	
Analysis Batch: 79312							Prep E	Batch: 79230	
	Spike	LCS	LCS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Aniline	10.0	6.14	V.	ug/L		61	13 - 100	101	
Phenol	10.0	8.20		ug/L		82	11 - 112		
Bis(2-chloroethyl)ether	10.0	7.81		ug/L		78	40 - 112		
2-Chlorophenol	10.0	8.04		ug/L		80	23 - 134		
Benzyl alcohol	10.0	8.92		ug/L		89	39 - 115		

6.82

8.92

8.24

7.83

7.25

7.47

7.76

7.90

7.97

8.28

7.56

8.41

7.95

5.72

8.36

7.85

7.89

7.68

8.67

8.06

8.44

7.46

ug/L

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: LCS 600-79230/2-A

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 79230

Matrix: Water Analysis Batch: 79312 LCS LCS Spike

	Бріке	LUS	LUS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	10.0	7.92		ug/L		79	47 - 145	
2,4-Dinitrophenol	10.0	8.82		ug/L		88	23 _ 130	
4-Nitrophenol	10.0	7.90		ug/L		79	14 - 132	
Dibenzofuran	10.0	8.50		ug/L		85	46 - 123	
2,4-Dinitrotoluene	10.0	8.49		ug/L		85	43 - 128	
Diethyl phthalate	10.0	12.0		ug/L		120	51 - 123	
4-Chlorophenyl phenyl ether	10.0	9.03		ug/L		90	48 - 125	
Fluorene	10.0	8.77		ug/L		88	48 - 127	
4-Nitroaniline	10.0	8.28		ug/L		83	32 - 139	
4,6-Dinitro-2-methylphenol	10.0	5.56		ug/L		56	24 - 122	
4-Bromophenyl phenyl ether	10.0	8.90		ug/L		89	46 - 129	
Hexachlorobenzene	10.0	8.62		ug/L		86	46 - 129	
Pentachlorophenol	10.0	7.62		ug/L		76	9 _ 147	
Phenanthrene	10.0	8.56		ug/L		86	52 ₋ 121	
Anthracene	10.0	8.32		ug/L		83	53 _ 124	
Di-n-butyl phthalate	10.0	9.10		ug/L		91	54 - 138	
Fluoranthene	10.0	8.61		ug/L		86	53 _ 127	
Pyrene	10.0	7.56		ug/L		76	49 _ 121	
Butyl benzyl phthalate	10.0	8.93		ug/L		89	50 ₋ 126	
3,3'-Dichlorobenzidine	10.0	8.30	J	ug/L		83	38 - 168	
Benzo[a]anthracene	10.0	7.69		ug/L		77	53 - 122	
Bis(2-ethylhexyl) phthalate	10.0	7.36		ug/L		74	47 - 132	
Chrysene	10.0	8.11		ug/L		81	49 - 124	
Di-n-octyl phthalate	10.0	8.43		ug/L		84	27 _ 157	
Benzo[b]fluoranthene	10.0	9.07		ug/L		91	53 ₋ 131	
Benzo[k]fluoranthene	10.0	9.00		ug/L		90	46 - 130	
Benzo[a]pyrene	10.0	9.04		ug/L		90	50 - 124	
Indeno[1,2,3-cd]pyrene	10.0	7.82		ug/L		78	45 - 124	
Dibenz(a,h)anthracene	10.0	9.61		ug/L		96	42 - 134	
Benzo[g,h,i]perylene	10.0	10.2		ug/L		102	46 - 133	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Phenol-d6	75	3	10 - 94
2,4,6-Tribromophenol	77		10 - 123
2-Fluorobiphenyl	77		43 - 116
2-Fluorophenol	69		10 - 100
Nitrobenzene-d5	69		35 - 114
Terphenyl-d14	74		33 - 141

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 600-79306/1-A

Matrix: Water

Analysis Batch: 79376

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 79306

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.83	U	2.0	0.83	mg/L	21 -21	05/15/12 14:14	05/15/12 22:09	1
>C12-C28	0.96	U	2.0	0.96	mg/L		05/15/12 14:14	05/15/12 22:09	1
>C28-C35	0.96	U	2.0	0.96	mg/L		05/15/12 14:14	05/15/12 22:09	1

Project/Site: R&H Oil

Surrogate

o-Terphenyl

Client: Pastor, Behling & Wheeler LLC

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

%Recovery Qualifier

120

Lab Sample ID: MB 600-79306/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Prep Batch: 79306 **Analysis Batch: 79376** MB MB

Analyte Result Qualifier MQL (Adj) SDL Unit Dil Fac D Prepared Analyzed 05/15/12 22:09 C6-C35 2.0 mg/L 05/15/12 14:14 1.6 U 1.6

мв мв Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac

97 70 - 130 05/15/12 14:14 05/15/12 22:09 o-Terphenyl

Lab Sample ID: LCS 600-79306/2-A Client Sample ID: Lab Control Sample

Matrix: Water Prep Type: Total/NA **Analysis Batch: 79376** Prep Batch: 79306

LCS LCS Spike %Rec. Analyte Added Result Qualifier %Rec Unit C6-C12 33.3 35.9 75 - 125 mg/L 108 >C12-C28 33.3 36.8 mg/L 110 75 - 125 C6-C35 66.7 72.7 109 75 - 125

mg/L LCS LCS Limits

o-Terphenyl 117 70 - 130

Lab Sample ID: LCSD 600-79306/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Water Prep Type: Total/NA Prep Batch: 79306 **Analysis Batch: 79376**

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit C6-C12 33.3 38.2 115 75 _ 125 6 20 mg/L >C12-C28 33.3 37.6 mg/L 113 75 - 125 2 20

C6-C35 66.7 75.8 114 75 - 125 mg/L LCSD LCSD %Recovery Qualifier Limits Surrogate

70 - 130

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-79110/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 79444 Prep Batch: 79110 MB MB

	IVID	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:01	1
Aluminum	0.022	U	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:01	1
Barium	0.0022	U	0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:01	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:01	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:01	1
Copper	0.00200	J	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:01	1
Manganese	0.00084	U	0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:01	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:01	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:01	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:01	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:01	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 18:01	1
Zinc	0.00300	J	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:01	1

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Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 600-79110/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA Analysis Batch: 79444 Prep Batch: 79110 Snika 100 100

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	1.00	0.933	\ <u>.</u>	mg/L		93	80 - 120	
Aluminum	10.0	9.98		mg/L		100	80 _ 120	
Barium	1.00	0.996		mg/L		100	80 _ 120	
Cobalt	1.00	0.989		mg/L		99	80 - 120	
Chromium	1.00	1.04		mg/L		104	80 - 120	
Copper	1.00	1.04		mg/L		104	80 _ 120	
Manganese	1.00	1.02		mg/L		102	80 - 120	
Nickel	1.00	0.946		mg/L		95	80 _ 120	
Lead	1.00	0.949		mg/L		95	80 - 120	
Selenium	1.00	0.930		mg/L		93	80 - 120	
Thallium	1.00	0.951		mg/L		95	80 _ 120	
Vanadium	1.00	1.09	^	mg/L		109	80 _ 120	
Zinc	1.00	0.960		mg/L		96	80 - 120	

Lab Sample ID: 600-54839-4 MS

Matrix: Water Analysis Batch: 79444									Prep Type: Total/NA Prep Batch: 79110
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Arsenic	0.026		1.00	0.952		mg/L		93	75 - 125
Aluminum	0.059	J	10.0	10.3		mg/L		102	75 ₋ 125
Barium	0.12		1.00	1.11		mg/L		99	75 ₋ 125
Cobalt	0.0013	J	1.00	1.01		mg/L		101	75 - 125
Chromium	0.0016	U	1.00	1.06		mg/L		106	75 ₋ 125
Copper	0.0015	U	1.00	1.07		mg/L		107	75 ₋ 125
Manganese	0.50		1.00	1.55		mg/L		105	75 ₋ 125
Nickel	0.0018	U	1.00	0.950		mg/L		95	75 ₋ 125
Lead	0.0029	U	1.00	0.950		mg/L		95	75 - 125
Selenium	0.0042	U	1.00	0.917		mg/L		92	75 ₋ 125
Thallium	0.0078	U	1.00	0.925		mg/L		92	75 - 125
Vanadium	0.0017	U ^	1.00	1.13	٨	mg/L		113	75 ₋ 125
Zinc	0.0028	JB	1.00	0.989		mg/L		99	75 ₋ 125

Lab Sample ID: 600-54839-4 MSD

Matrix: Water

Analysis Batch: 79444

Client Sample ID: MW-17	•
Prep Type: Total/NA	
Prep Batch: 79110)
%Rec. RPD)

Client Sample ID: MW-17

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	0.026	-	1.00	0.964	13	mg/L		94	75 - 125	1	20
Aluminum	0.059	J	10.0	10.7		mg/L		106	75 - 125	4	20
Barium	0.12		1.00	1.16		mg/L		103	75 - 125	4	20
Cobalt	0.0013	J	1.00	1.02		mg/L		102	75 - 125	1	20
Chromium	0.0016	U	1.00	1.02		mg/L		102	75 - 125	3	20
Copper	0.0015	U	1.00	1.04		mg/L		104	75 - 125	3	20
Manganese	0.50		1.00	1.49		mg/L		99	75 - 125	4	20
Nickel	0.0018	U	1.00	0.963		mg/L		96	75 - 125	1	20
Lead	0.0029	U	1.00	0.965		mg/L		96	75 - 125	2	20
Selenium	0.0042	U	1.00	0.930		mg/L		93	75 - 125	1	20
Thallium	0.0078	U	1.00	0.942		mg/L		94	75 - 125	2	20
Vanadium	0.0017	U ^	1.00	1.10	۸	mg/L		110	75 - 125	3	20

Project/Site: R&H Oil

Method: 6010B - Metals (ICP) (Continued)

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: 600-54839-4 MSD Client Sample ID: MW-17 **Matrix: Water** Prep Type: Total/NA **Analysis Batch: 79444** Prep Batch: 79110

MSD MSD Sample Sample Spike **RPD** Analyte Result Qualifier Added Result Qualifier %Rec Limits RPD Limit Unit D Zinc 0.0028 JB 1.00 1.00 100 75 - 125 20

Lab Sample ID: 600-54839-4 DU Client Sample ID: MW-17 **Matrix: Water** Prep Type: Total/NA

mg/L

Analysis Batch: 79444 Prep Batch: 79110

Prep Batch.				
	RPD			
RPD	Limit			
2	20			
8	20			
0.3	20			
7	20			
NC	20			
NC	20			
6	20			
NC	20			
24	20			
	NC			

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 600-79162/7-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 79235

MB MB Analyte Result Qualifier MQL (Adj) SDL Unit Prepared Dil Fac

Analyzed 0.000026 U 0.00020 05/14/12 09:05 Mercury 0.000026 mg/L 05/14/12 15:26

Lab Sample ID: LCS 600-79162/8-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 79235 Prep Batch: 79162 Spike LCS LCS %Rec.

Added Result Qualifier Analyte Unit D %Rec Limits 0.00300 0.00301 Mercury mg/L 100 70 - 130

Prep Batch: 79162

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

GC/MS VOA

Analysis Batch: 79199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-2	MW-14	Total/NA	Water	8260B	_ 3
600-54839-3	MW-19	Total/NA	Water	8260B	
600-54839-4	MW-17	Total/NA	Water	8260B	
600-54839-6	MW-12	Total/NA	Water	8260B	
600-54839-7	MW-3	Total/NA	Water	8260B	
LCS 600-79199/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79199/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-8 - DL	MW-2	Total/NA	Water	8260B	
600-54839-10	MW-20	Total/NA	Water	8260B	
600-54839-11	MW-9	Total/NA	Water	8260B	
600-54839-12	MW-21	Total/NA	Water	8260B	
600-54839-13	MW-22	Total/NA	Water	8260B	
600-54839-14	MW-18	Total/NA	Water	8260B	
LCS 600-79279/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79279/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-2 - DL	MW-14	Total/NA	Water	8260B	
600-54839-3 - DL	MW-19	Total/NA	Water	8260B	
600-54839-4 - DL	MW-17	Total/NA	Water	8260B	
600-54839-5	MW-15	Total/NA	Water	8260B	
600-54839-5 - DL	MW-15	Total/NA	Water	8260B	
600-54839-6 - DL	MW-12	Total/NA	Water	8260B	
600-54839-7 - DL	MW-3	Total/NA	Water	8260B	
600-54839-8	MW-2	Total/NA	Water	8260B	
LCS 600-79300/5	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79300/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-9	MW-4	Total/NA	Water	8260B	
600-54839-14 - DL	MW-18	Total/NA	Water	8260B	
LCS 600-79383/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79383/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	8260B	
600-54839-1 - DL	MW-16	Total/NA	Water	8260B	
600-54839-5 - DL	MW-15	Total/NA	Water	8260B	
LCS 600-79394/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79394/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 79230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	3510C	- Ai

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

GC/MS Semi VOA (Continued)

Prep Batch: 79230 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-2	MW-14	Total/NA	Water	3510C	
600-54839-3	MW-19	Total/NA	Water	3510C	
600-54839-4	MW-17	Total/NA	Water	3510C	
600-54839-5	MW-15	Total/NA	Water	3510C	
600-54839-6	MW-12	Total/NA	Water	3510C	
600-54839-7	MW-3	Total/NA	Water	3510C	
600-54839-8	MW-2	Total/NA	Water	3510C	
600-54839-9	MW-4	Total/NA	Water	3510C	
600-54839-10	MW-20	Total/NA	Water	3510C	
600-54839-11	MW-9	Total/NA	Water	3510C	
600-54839-12	MW-21	Total/NA	Water	3510C	
600-54839-13	MW-22	Total/NA	Water	3510C	
600-54839-14	MW-18	Total/NA	Water	3510C	
600-54839-14 - DL	MW-18	Total/NA	Water	3510C	
LCS 600-79230/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-79230/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 79312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	8270C LL	79230
600-54839-9	MW-4	Total/NA	Water	8270C LL	79230
600-54839-10	MW-20	Total/NA	Water	8270C LL	79230
600-54839-11	MW-9	Total/NA	Water	8270C LL	79230
600-54839-12	MW-21	Total/NA	Water	8270C LL	79230
600-54839-13	MW-22	Total/NA	Water	8270C LL	79230
LCS 600-79230/2-A	Lab Control Sample	Total/NA	Water	8270C LL	79230

Analysis Batch: 79549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-3	MW-19	Total/NA	Water	8270C LL	79230
600-54839-4	MW-17	Total/NA	Water	8270C LL	79230
600-54839-5	MW-15	Total/NA	Water	8270C LL	79230
600-54839-6	MW-12	Total/NA	Water	8270C LL	79230
600-54839-7	MW-3	Total/NA	Water	8270C LL	79230
600-54839-8	MW-2	Total/NA	Water	8270C LL	79230
600-54839-14	MW-18	Total/NA	Water	8270C LL	79230
MB 600-79230/1-A	Method Blank	Total/NA	Water	8270C LL	79230

Analysis Batch: 79879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-2	MW-14	Total/NA	Water	8270C LL	79230

Analysis Batch: 79972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-14 - DL	MW-18	Total/NA	Water	8270C LL	79230

GC Semi VOA

Prep Batch: 79306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	TX_1005_W_Pr	
				ер	

QC Association Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

GC Semi VOA (Continued)

Prep Batch: 79306 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep B
600-54839-2	MW-14	Total/NA	Water	TX_1005_W_Pr
				ер
600-54839-3	MW-19	Total/NA	Water	TX_1005_W_Pr
				ер
600-54839-4	MW-17	Total/NA	Water	TX_1005_W_Pr
				ер
600-54839-5	MW-15	Total/NA	Water	TX_1005_W_Pr
				ер
600-54839-6	MW-12	Total/NA	Water	TX_1005_W_Pr
				ер
600-54839-7	MW-3	Total/NA	Water	TX_1005_W_Pr
				ер
600-54839-8	MW-2	Total/NA	Water	TX_1005_W_Pr
				ер
600-54839-9	MW-4	Total/NA	Water	TX_1005_W_Pr
				ер
600-54839-10	MW-20	Total/NA	Water	TX_1005_W_Pr
				ер
600-54839-11	MW-9	Total/NA	Water	TX_1005_W_Pr
				ер
600-54839-12	MW-21	Total/NA	Water	TX_1005_W_Pr
				ер
600-54839-13	MW-22	Total/NA	Water	TX_1005_W_Pr
				ер
600-54839-14	MW-18	Total/NA	Water	TX_1005_W_Pr
1 00 000 70000/0 4	Lab Cartal Carrata	T-1-1/NIA	10/-1	ер
LCS 600-79306/2-A	Lab Control Sample	Total/NA	Water	TX_1005_W_Pr
				ep
LCSD 600-79306/3-A	Lab Control Sample Dup	Total/NA	Water	TX_1005_W_Pr
MD 000 70000/4 A	Mathad Dladi	T-4-1/NIA	10/2422	ep
MB 600-79306/1-A	Method Blank	Total/NA	Water	TX_1005_W_Pr
				ер

Analysis Batch: 79369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-7	MW-3	Total/NA	Water	TX 1005	79306

Analysis Batch: 79376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	TX 1005	79306
600-54839-2	MW-14	Total/NA	Water	TX 1005	79306
600-54839-3	MW-19	Total/NA	Water	TX 1005	79306
600-54839-4	MW-17	Total/NA	Water	TX 1005	79306
600-54839-5	MW-15	Total/NA	Water	TX 1005	79306
600-54839-6	MW-12	Total/NA	Water	TX 1005	79306
600-54839-8	MW-2	Total/NA	Water	TX 1005	79306
600-54839-9	MW-4	Total/NA	Water	TX 1005	79306
600-54839-10	MW-20	Total/NA	Water	TX 1005	79306
600-54839-11	MW-9	Total/NA	Water	TX 1005	79306
600-54839-12	MW-21	Total/NA	Water	TX 1005	79306
600-54839-13	MW-22	Total/NA	Water	TX 1005	79306
600-54839-14	MW-18	Total/NA	Water	TX 1005	79306
LCS 600-79306/2-A	Lab Control Sample	Total/NA	Water	TX 1005	79306
LCSD 600-79306/3-A	Lab Control Sample Dup	Total/NA	Water	TX 1005	79306
MB 600-79306/1-A	Method Blank	Total/NA	Water	TX 1005	79306

TestAmerica Houston 5/30/2012

QC Association Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Metals

Prep Batch: 79110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	3010A	
600-54839-2	MW-14	Total/NA	Water	3010A	
600-54839-3	MW-19	Total/NA	Water	3010A	
600-54839-4	MW-17	Total/NA	Water	3010A	
600-54839-4 DU	MW-17	Total/NA	Water	3010A	
600-54839-4 MS	MW-17	Total/NA	Water	3010A	
600-54839-4 MSD	MW-17	Total/NA	Water	3010A	
600-54839-5	MW-15	Total/NA	Water	3010A	
600-54839-6	MW-12	Total/NA	Water	3010A	
600-54839-7	MW-3	Total/NA	Water	3010A	
600-54839-8	MW-2	Total/NA	Water	3010A	
600-54839-9	MW-4	Total/NA	Water	3010A	
600-54839-10	MW-20	Total/NA	Water	3010A	
600-54839-11	MW-9	Total/NA	Water	3010A	
600-54839-12	MW-21	Total/NA	Water	3010A	
600-54839-13	MW-22	Total/NA	Water	3010A	
600-54839-14	MW-18	Total/NA	Water	3010A	
LCS 600-79110/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 600-79110/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 79162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
600-54839-1	MW-16	Total/NA	Water	7470A	
600-54839-2	MW-14	Total/NA	Water	7470A	
600-54839-3	MW-19	Total/NA	Water	7470A	
600-54839-4	MW-17	Total/NA	Water	7470A	
600-54839-5	MW-15	Total/NA	Water	7470A	
600-54839-6	MW-12	Total/NA	Water	7470A	
600-54839-7	MW-3	Total/NA	Water	7470A	
600-54839-8	MW-2	Total/NA	Water	7470A	
600-54839-9	MW-4	Total/NA	Water	7470A	
600-54839-10	MW-20	Total/NA	Water	7470A	
600-54839-11	MW-9	Total/NA	Water	7470A	
600-54839-12	MW-21	Total/NA	Water	7470A	
600-54839-13	MW-22	Total/NA	Water	7470A	
600-54839-14	MW-18	Total/NA	Water	7470A	
LCS 600-79162/8-A	Lab Control Sample	Total/NA	Water	7470A	
MB 600-79162/7-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 79235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	7470A	79162
600-54839-2	MW-14	Total/NA	Water	7470A	79162
600-54839-3	MW-19	Total/NA	Water	7470A	79162
600-54839-4	MW-17	Total/NA	Water	7470A	79162
600-54839-5	MW-15	Total/NA	Water	7470A	79162
600-54839-6	MW-12	Total/NA	Water	7470A	79162
600-54839-7	MW-3	Total/NA	Water	7470A	79162
600-54839-8	MW-2	Total/NA	Water	7470A	79162
600-54839-9	MW-4	Total/NA	Water	7470A	79162
600-54839-10	MW-20	Total/NA	Water	7470A	79162
600-54839-11	MW-9	Total/NA	Water	7470A	79162

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QC Association Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Metals (Continued)

Analysis Batch: 79235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-12	MW-21	Total/NA	Water	7470A	79162
600-54839-13	MW-22	Total/NA	Water	7470A	79162
600-54839-14	MW-18	Total/NA	Water	7470A	79162
LCS 600-79162/8-A	Lab Control Sample	Total/NA	Water	7470A	79162
MB 600-79162/7-A	Method Blank	Total/NA	Water	7470A	79162

Analysis Batch: 79444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	6010B	79110
600-54839-2	MW-14	Total/NA	Water	6010B	79110
600-54839-3	MW-19	Total/NA	Water	6010B	79110
600-54839-4	MW-17	Total/NA	Water	6010B	79110
600-54839-4 DU	MW-17	Total/NA	Water	6010B	79110
600-54839-4 MS	MW-17	Total/NA	Water	6010B	79110
600-54839-4 MSD	MW-17	Total/NA	Water	6010B	79110
600-54839-5	MW-15	Total/NA	Water	6010B	79110
600-54839-6	MW-12	Total/NA	Water	6010B	79110
600-54839-7	MW-3	Total/NA	Water	6010B	79110
600-54839-8	MW-2	Total/NA	Water	6010B	79110
600-54839-9	MW-4	Total/NA	Water	6010B	79110
600-54839-10	MW-20	Total/NA	Water	6010B	79110
600-54839-11	MW-9	Total/NA	Water	6010B	79110
600-54839-12	MW-21	Total/NA	Water	6010B	79110
600-54839-13	MW-22	Total/NA	Water	6010B	79110
600-54839-14	MW-18	Total/NA	Water	6010B	79110
LCS 600-79110/2-A	Lab Control Sample	Total/NA	Water	6010B	79110
MB 600-79110/1-A	Method Blank	Total/NA	Water	6010B	79110

Analysis Batch: 79470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-5	MW-15	Total/NA	Water	6010B	79110
600-54839-7	MW-3	Total/NA	Water	6010B	79110
600-54839-9	MW-4	Total/NA	Water	6010B	79110
600-54839-10	MW-20	Total/NA	Water	6010B	79110
600-54839-11	MW-9	Total/NA	Water	6010B	79110
600-54839-12	MW-21	Total/NA	Water	6010B	79110
600-54839-13	MW-22	Total/NA	Water	6010B	79110

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: MW-16 Lab Sample ID: 600-54839-1

Date Collected: 05/10/12 07:50

Matrix: Water
Date Received: 05/11/12 10:10

Batch		Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79394	05/16/12 17:41	DT	TAL HOU
Total/NA	Analysis	8260B	DL	100	79394	05/16/12 18:10	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOL
Total/NA	Analysis	8270C LL		1	79312	05/15/12 16:37	TTD	TAL HOL
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOL
Total/NA	Analysis	TX 1005		1	79376	05/16/12 02:11	RV	TAL HOL
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOL
Total/NA	Analysis	7470A		1	79235	05/14/12 15:52	SRP	TAL HOL
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOL
Total/NA	Analysis	6010B		1	79444	05/16/12 18:34	DCL	TAL HOL

Client Sample ID: MW-14 Lab Sample ID: 600-54839-2

Date Collected: 05/10/12 09:20 Matrix: Water

Date Received: 05/11/12 10:10 Dilution Prepared Batch Batch **Batch** Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8260B 200 79199 05/14/12 19:59 DT TAL HOU Total/NA Analysis 8260B DL 1000 79300 05/15/12 18:53 DT Total/NA 3510C 79230 05/14/12 16:21 SMB Prep

TAL HOU TAL HOU Total/NA Analysis 8270C LL 50 79879 05/22/12 14:25 JΗ TAL HOU TAL HOU Total/NA 79306 05/15/12 14:14 NV Prep TX_1005_W_Prep Total/NA Analysis TX 1005 79376 05/16/12 02:45 RVTAL HOU Total/NA 79162 05/14/12 09:05 SRP TAL HOU Prep 7470A Total/NA 7470A 79235 05/14/12 15:54 SRP TAL HOU Analysis 79110 NER Total/NA 05/11/12 15:31 TAL HOU Prep 3010A Total/NA 6010B 79444 05/16/12 18:37 DCL TAL HOU Analysis

Client Sample ID: MW-19 Lab Sample ID: 600-54839-3

Date Collected: 05/10/12 11:30 Date Received: 05/11/12 10:10

Batch		Batch	Dilution	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	79199	05/14/12 18:05	DT	TAL HOU
Total/NA	Analysis	8260B	DL	500	79300	05/15/12 14:08	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	79549	05/18/12 01:09	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 03:20	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 15:56	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 18:39	DCL	TAL HOU

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Matrix: Water

Project/Site: R&H Oil

Total/NA

Total/NA

Client Sample ID: MW-17

Client: Pastor, Behling & Wheeler LLC

Prep

Analysis

3010A

6010B

Lab Sample ID: 600-54839-4 Date Collected: 05/10/12 12:40 Date Received: 05/11/12 10:10

Matrix: Water

TAL HOU

TAL HOU

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8260B 50 79199 05/14/12 18:33 DT TAL HOU Total/NA DL 200 79300 05/15/12 16:29 TAL HOU Analysis 8260B DT Total/NA Prep 3510C 79230 05/14/12 16:21 SMB TAL HOU 8270C LL TTD TAL HOU Total/NA Analysis 10 79549 05/18/12 01:35 Total/NA Prep TX_1005_W_Prep 79306 05/15/12 14:14 NV TAL HOU Total/NA Analysis TX 1005 1 79376 05/16/12 04:30 RVTAL HOU Total/NA Prep 7470A 79162 05/14/12 09:05 SRP TAL HOU Total/NA Analysis 7470A 1 79235 05/14/12 15:58 SRP TAL HOU

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Client Sample ID: MW-15 Lab Sample ID: 600-54839-5

79110

79444

05/11/12 15:31

05/16/12 18:42

NER

DCL

Date Collected: 05/10/12 14:20 **Matrix: Water**

Date Received: 05/11/12 10:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	- B X	10	79300	05/15/12 19:21	DT	TAL HOU
Total/NA	Analysis	8260B	DL	100	79300	05/15/12 19:50	DT	TAL HOU
Total/NA	Analysis	8260B	DL	1000	79394	05/16/12 19:35	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	79549	05/18/12 02:01	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 05:05	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:00	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 18:51	DCL	TAL HOU
Total/NA	Analysis	6010B		1	79470	05/17/12 12:00	DCL	TAL HOU

Client Sample ID: MW-12 Lab Sample ID: 600-54839-6

Date Collected: 05/10/12 15:20 **Matrix: Water** Date Received: 05/11/12 10:10

Batch		Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	79199	05/14/12 19:02	DT	TAL HOU
Total/NA	Analysis	8260B	DL	1000	79300	05/15/12 16:58	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	79549	05/18/12 02:27	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 05:39	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:02	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 18:53	DCL	TAL HOU

Project/Site: R&H Oil

Client Sample ID: MW-3

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: 600-54839-7

Date Collected: 05/10/12 16:20 **Matrix: Water** Date Received: 05/11/12 10:10

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8260B 200 79199 05/14/12 20:56 DT TAL HOU DL 2000 05/15/12 20:19 TAL HOU Total/NA Analysis 8260B 79300 DT Total/NA Prep 3510C 79230 05/14/12 16:21 SMB TAL HOU TTD Total/NA Analysis 8270C LL 50 79549 05/18/12 02:54 TAL HOU Prep Total/NA TX_1005_W_Prep 79306 05/15/12 14:14 NV TAL HOU Total/NA Analysis TX 1005 5 79369 05/16/12 13:07 RVTAL HOU Total/NA Prep 7470A 79162 05/14/12 09:05 SRP TAL HOU Total/NA Analysis 7470A 1 79235 05/14/12 16:03 SRP TAL HOU

Client Sample ID: MW-2 Lab Sample ID: 600-54839-8 Date Collected: 05/10/12 17:15 **Matrix: Water**

79110

79444

79470

05/11/12 15:31

05/16/12 19:03

05/17/12 12:03

NER

DCL

DCL

TAL HOU

TAL HOU

TAL HOU

Date Received: 05/11/12 10:10

Prep

Analysis

Analysis

3010A

6010B

6010B

Total/NA

Total/NA

Total/NA

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	50	79279	05/15/12 07:14	DT	TAL HOL
Total/NA	Analysis	8260B		5	79300	05/15/12 14:36	DT	TAL HOL
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOL
Total/NA	Analysis	8270C LL		10	79549	05/18/12 03:20	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 06:48	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:05	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 19:05	DCL	TAL HO

Client Sample ID: MW-4 Lab Sample ID: 600-54839-9

Date Collected: 05/09/12 11:00 **Matrix: Water** Date Received: 05/11/12 10:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	79383	05/16/12 10:09	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79312	05/15/12 20:05	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 07:22	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:11	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 19:08	DCL	TAL HOU
Total/NA	Analysis	6010B		1	79470	05/17/12 12:12	DCL	TAL HOU

TestAmerica Houston 5/30/2012

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54839-10

Matrix: Water

Client Sample ID: MW-20 Date Collected: 05/09/12 12:15 Date Received: 05/11/12 10:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 01:04	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79312	05/15/12 20:31	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 07:56	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:13	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 19:10	DCL	TAL HOU
Total/NA	Analysis	6010B		1	79470	05/17/12 12:15	DCL	TAL HOU

Lab Sample ID: 600-54839-11 Client Sample ID: MW-9

Matrix: Water

Date Collected: 05/09/12 14:30 Date Received: 05/11/12 10:10

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8260B 79279 05/15/12 01:32 DT TAL HOU Total/NA Prep 3510C 79230 05/14/12 16:21 SMB TAL HOU Total/NA 8270C LL 79312 05/15/12 20:56 TTD TAL HOU Analysis 1 Total/NA Prep TX_1005_W_Prep 79306 05/15/12 14:14 NVTAL HOU Total/NA TX 1005 05/16/12 08:30 TAL HOU Analysis 1 79376 RVTotal/NA Prep 7470A 79162 05/14/12 09:05 SRP TAL HOU Total/NA 7470A 79235 05/14/12 16:14 SRP TAL HOU Analysis 1 Total/NA Prep 3010A 79110 05/11/12 15:31 NER TAL HOU 05/16/12 19:12 DCL Total/NA Analysis 6010B 79444 TAL HOU 1 Total/NA Analysis 6010B 79470 05/17/12 12:17 DCL TAL HOU

Lab Sample ID: 600-54839-12 Client Sample ID: MW-21 Date Collected: 05/09/12 15:30 Matrix: Water

Date Received: 05/11/12 10:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 02:01	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79312	05/15/12 21:22	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 09:05	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:16	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Γotal/NA	Analysis	6010B		1	79444	05/16/12 19:15	DCL	TAL HOU
Total/NA	Analysis	6010B		1	79470	05/17/12 12:20	DCL	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID: 600-54839-13

Matrix: Water

Date Collected: 05/09/12 16:40 Date Received: 05/11/12 10:10

Client Sample ID: MW-22

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			79279	05/15/12 02:30	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79312	05/15/12 21:48	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 09:39	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:18	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 19:17	DCL	TAL HOU
Total/NA	Analysis	6010B		1	79470	05/17/12 12:22	DCL	TAL HOU

Lab Sample ID: 600-54839-14

Matrix: Water

Client Sample ID: MW-18
Date Collected: 05/09/12 17:50
Date Received: 05/11/12 10:10

- 1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	79279	05/15/12 08:11	DT	TAL HOU
Total/NA	Analysis	8260B	DL	5000	79383	05/16/12 09:40	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	79549	05/18/12 04:12	TTD	TAL HOU
Total/NA	Prep	3510C	DL		79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	79972	05/23/12 13:11	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 10:48	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:20	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOL
Total/NA	Analysis	6010B		1	79444	05/16/12 19:20	DCL	TAL HOL

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Houston	Arkansas DEQ	State Program	6	88-0759
TestAmerica Houston	Louisiana	NELAC	6	30643
TestAmerica Houston	Oklahoma	State Program	6	9503
TestAmerica Houston	Texas	NELAC	6	T104704223-10-6-TX
TestAmerica Houston	USDA	Federal		P330-08-00217
TestAmerica Houston	Utah	NELAC	8	GULF

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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Method Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
7470A	Mercury (CVAA)	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TCEQ = Texas Commission of Environmental Quality

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-54839-1	MW-16	Water	05/10/12 07:50	05/11/12 10:10
600-54839-2	MW-14	Water	05/10/12 09:20	05/11/12 10:10
600-54839-3	MW-19	Water	05/10/12 11:30	05/11/12 10:10
600-54839-4	MW-17	Water	05/10/12 12:40	05/11/12 10:10
600-54839-5	MW-15	Water	05/10/12 14:20	05/11/12 10:10
600-54839-6	MW-12	Water	05/10/12 15:20	05/11/12 10:10
600-54839-7	MW-3	Water	05/10/12 16:20	05/11/12 10:10
600-54839-8	MW-2	Water	05/10/12 17:15	05/11/12 10:10
600-54839-9	MW-4	Water	05/09/12 11:00	05/11/12 10:10
600-54839-10	MW-20	Water	05/09/12 12:15	05/11/12 10:10
600-54839-11	MW-9	Water	05/09/12 14:30	05/11/12 10:10
600-54839-12	MW-21	Water	05/09/12 15:30	05/11/12 10:10
600-54839-13	MW-22	Water	05/09/12 16:40	05/11/12 10:10
600-54839-14	MW-18	Water	05/09/12 17:50	05/11/12 10:10

TestAmerica Houston

6310 Rothway Street

Houston, TX 77040

Chain of Custody Record



Phone:	V W.A. C.			Sampler. JOHN BRAYTON Kudchadkar, Sachin G													COC No. 600-9060.1		
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Due Date Requeste	od:			1:1		П			1.70.0	T	1000		TT	TT	\dashv	Preservation Co	odes:		
TAT Requested (da	iys):															A - HCL	M - Hexane N - None		
																C - Zn Acetate	O - AsNaO2 P - Na2O4S		
	Nicos Nicos														- 1	E - NaHSO4	Q - Na2SO3		
PO #.				6		l									- 1	G - Amchior	R - Na2S2SO3 S - H2SO4 T - TSP Dodecahyo		
WO #:				Or N	A i.	900										- Ice	U - Acetone V - MCAA		
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	TAT Requested (date	WO #: Project #: 30002002 SSOW#: Sample Date Time Time S-10-12 075D 092O 130O 142O 142O 152O 152O	TAT Requested (days): PO#. WO #: Project #: 30002002 SSOW#: Sample Type (C=comp, G=grab) Preserv: 5-10-12 0750 G 1420 G 142	TAT Requested (days): PO #. WO #: Project #: 30002002 \$SOW#: Sample Date Time Sample Type (C=comp, G=grab) ST=Tissue, A-Air Preservation Code: \$-10-12 075D G W 130 G W 1420 G W	PO #.	FO #.	TAT Requested (days):	TAT Requested (days):	Due Date Requested: TAT Requested (days):	TAT Requested (days):	Date Time: Date Date	Double Date Date	Doub Date Requested:	Date Date					

6310 Rothway Street Houston, TX 77040

Phore (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Client Information	Sampler	BRA	47016	Lab F Kud	™: chadka	r. Sa	chin	G			Ca	mior Tr	acking	No(s):			COC No: 600-9060.1	· · · · · · · · · · · · · · · · · · ·
Client Contact. Mr. Tim Nickels	Phone:		7	E-Ma	il:				morio	olee eee							Page 2012	
Сотралу:	<u> </u>			Saci	an.kud	Ullau	Karw	lesia	-	ainc.con			_				Job #:	
Pastor, Behling & Wheeler LLC Address:	Due Date Request	o.d.			1	_			An	alysis	Requ	este	d					•
2201 Double Creek Dr Suite 4004																	Preservation Co	des: M - Hexane
City: Round Rock	TAT Requested (d.	ays):															B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip: TX, 78664																	D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3
Phone: 512-671-3434(Tel) 512-671-3446(Fax)	PO #:				اءا												= - MeOH S - Amchlor	R - Na2S2SO3 S - H2SO4
Email: tim.nickels@pbwllc.com	WO#:				Sample (Yes or No ISD (Yes or No)	JA.	900									10	H - Ascorbic Acid - Ice J - Di Water	T - TSP Dodecahydrate U - Acetone V - MCAA
Project Name:	Project#:		- 1400 - 1400		ered Sample (Yes or MS/MSD (Yes or No)	6010B, 7470A- Metals- TOTAL	HOLD TX1006									containers	K - EDTA L - EDA	W - ph 4-5 Z - other (specify)
R&H Oil Site:	60002002 ssow#:				eg &	etals	HOLD		S							cont	Other:	(0,000)
San Antonio			Т			.A-₩	PH:	VOC	SVO							ō		
			Sample Type	Matrix (w=water,	Fleid Filtered Perform MS/A	7470	TX_1005- TPH:	8260B_LL . VOC	8270C_LL - SVOC							Total Number		
	The No. Was W	Sample	(C=comp,	S-colld. O-wasto/oil,	Field Filte Perform I	10B,	10(E09	70C			Ì			İ	tai N		
Sample Identification	Sample Date	Time		BT=Tissue, A=Air)		9	1	82	82			sel and				L _o	Special Ir	structions/Note:
MW-21	5-9-12	1530	G	W	m	X	X	X	X	2414 44111						+		
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Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-54839-1

Login Number: 54839 List Source: TestAmerica Houston

List Number: 1

Creator: Trenery, Michael J

Croater Trenery, Internation		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.1 3.6 5.5 5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston 6310 Rothway Street Houston, TX 77040 Tel: (713)690-4444

TestAmerica Job ID: 600-54909-1

Client Project/Site: R&H Oil

Revision: 1

For:

Pastor, Behling & Wheeler LLC 2201 Double Creek Dr Suite 4004 Round Rock, Texas 78664

Attn: Mr. Tim Nickels

Authorized for release by: 7/18/2012 12:03:41 PM

Cathy Upton LAN Analyst

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar Project Manager II

sachin.kudchadkar@testamericainc.com

····· Links ·····

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

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Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Qualifiers

GC/MS VOA

Qualifier	alifier Description					
U	Indicates the analyte was analyzed for but not detected.					
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.					
*	LCS or LCSD exceeds the control limits					
F	MS or MSD exceeds the control limits					

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
В	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits
Χ	Surrogate is outside control limits
00 0	

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits
Motals	

Qualifier	ualifier Description						
В	Compound was found in the blank and sample.						
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.						
U	Indicates the analyte was analyzed for but not detected.						
F	MS or MSD exceeds the control limits						

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
₩	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TestAmerica Houston 7/18/2012

Page 3 of 94

Case Narrative

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Job ID: 600-54909-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-54909-1

Comments

The report was revised to correct the Chrysene recovery in the MSD and to verify that Chrysene was ND in all samples.

Receipt

The samples were received on 5/12/2012 9:42 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.8° C, 4.1° C and 6.0° C.

Except:

One or more containers for the following samples were received broken or leaking: DUP-1 (600-54909-2), DUP-2 (600-54909-7), MW-5 (600-54909-3 MS), MW-5 (600-54909-3 MSD), MW-6 (600-54909-9), MW-7 (600-54909-8 MS), MW-7 (600-54909-8 MSD), MW-8 (600-54909-6). Some containers were not received.

GC/MS VOA

Method(s) 8260B: The following samples were diluted due to the abundance of target analytes: MW-5 (600-54909-3) and MW-6 (600-54909-9). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The laboratory control samples (LCS's) for batches 79279, 79300, 79383 and 79394 exceeded control limits for the following analyte: Dichlorodifluoromethane. This analyte was biased high in the LCS's and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batches 79279 and 79300 were outside control limits: MW-5 (600-54909-3 MS, MS DL), MW-5 (600-54909-3 MSD, MSD DL). Matrix interference is suspected.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batch 79394 were outside control limits: MW-7 (600-54909-8 MS), MW-7 (600-54909-8 MSD). Matrix interference is suspected.

No other analytical or quality issues were noted.

GC/MS Semi VOA

Method(s) 8270C LL: The following sample was diluted due to the abundance of target analytes: MW-6 (600-54909-9). Elevated reporting limits (RLs) are provided.

Method(s) 8270C LL: Due to the level of dilution required for the following sample, surrogate recoveries are not reported: MW-6 (600-54909-9 DL).

Method(s) 8270C LL: The method blank for batch 79421 contained Butyl benzyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision associated with batch 79421 were outside control limits: MW-5 (600-54909-3 MS), MW-5 (600-54909-3 MSD), MW-7 (600-54909-8 MS), MW-7 (600-54909-8 MSD). Matrix interference is suspected.

No other analytical or quality issues were noted.

GC Semi VOA

Method(s) TX 1005: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision associated with batch 79551 were outside control limits: MW-5 (600-54909-3 MS), MW-5 (600-54909-3 MSD). Matrix interference is suspected.

No other analytical or quality issues were noted.

Metals

TestAmerica Houston 7/18/2012

Case Narrative

TestAmerica Job ID: 600-54909-1

Project/Site: R&H Oil

Job ID: 600-54909-1 (Continued)

Client: Pastor, Behling & Wheeler LLC

Laboratory: TestAmerica Houston (Continued)

Method(s) 6010B: The method blanks for prep batch 79276 contained aluminum and zinc above the method detection limit. These target analytes concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6010B: The serial dilution performed for the following sample associated with batch 79276 was outside control limits for barium: (600-54909-3 SD). Matrix interference is suspected.

Method(s) 6010B: The continuing calibration verification (CCV) for barium associated with batch 79370 recovered above the upper control limit. This CCV only bracketed the serial dilution for this group; therefore, the data have been reported.

Method(s) 7470A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batch 79339 were outside control limits: MW-5 (600-54909-3 MS), MW-5 (600-54909-3 MSD). Matrix interference is suspected.

Method(s) 7470A: The post digestion spike % recovery for mercury associated with batch 79339 was outside of control limits. Matrix interference is suspected.

Method(s) 7470A: The following sample was prepped at a reduced volume due to insufficient volume received: MW-10 (600-54909-5).

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

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Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

Client Sample ID: MW-1

Lab Sample ID: 600-54909-1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	9.0	8	1.0	0.12	ug/L	1	_	8260B	Total/NA
Benzene	11		1.0	0.080	ug/L	1		8260B	Total/NA
1,2-Dichloropropane	5.9		1.0	0.16	ug/L	1		8260B	Total/NA
Chloroform	0.33	J	1.0	0.13	ug/L	1		8260B	Total/NA
Toluene	1.2		1.0	0.15	ug/L	1		8260B	Total/NA
Ethylbenzene	0.47	J	1.0	0.11	ug/L	1		8260B	Total/NA
Xylenes, Total	2.6		1.0	0.26	ug/L	1		8260B	Total/NA
Isopropylbenzene	29		1.0	0.18	ug/L	1		8260B	Total/NA
N-Propylbenzene	31		1.0	0.15	ug/L	1		8260B	Total/NA
tert-Butylbenzene	0.94	J	1.0	0.080	ug/L	1		8260B	Total/NA
sec-Butylbenzene	2.9		1.0	0.12	ug/L	1		8260B	Total/NA
n-Butylbenzene	2.7		1.0	0.16	ug/L	1		8260B	Total/NA
Naphthalene	0.78	J	1.0	0.32	ug/L	1		8260B	Total/NA
2-Methylnaphthalene	3.4		1.5	0.069	ug/L	1		8270C LL	Total/NA
Acenaphthene	0.44	J	0.99	0.079	ug/L	1		8270C LL	Total/NA
Dibenzofuran	0.93	J	1.5	0.079	ug/L	1		8270C LL	Total/NA
Fluorene	1.2	J	1.5	0.069	ug/L	1		8270C LL	Total/NA
Phenanthrene	0.35	J	1.5	0.059	ug/L	1		8270C LL	Total/NA
Anthracene	0.16	J	0.99	0.049	ug/L	1		8270C LL	Total/NA
Di-n-butyl phthalate	0.31	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.57	JB	2.5	0.12	ug/L	1		8270C LL	Total/NA
Bis(2-ethylhexyl) phthalate	0.40	J	2.5	0.36	ug/L	1		8270C LL	Total/NA
Arsenic	0.030		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.077	JB	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.51		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0026	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Copper	0.0030	J	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.27		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0087	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Zinc	0.0058	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 600-54909-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	9.5	8-	1.0	0.12	ug/L	1	-	8260B	Total/NA
Benzene	12		1.0	0.080	ug/L	1		8260B	Total/NA
1,2-Dichloropropane	6.9		1.0	0.16	ug/L	1		8260B	Total/NA
Chloroform	0.54	J	1.0	0.13	ug/L	1		8260B	Total/NA
Toluene	1.4		1.0	0.15	ug/L	1		8260B	Total/NA
Ethylbenzene	0.51	J	1.0	0.11	ug/L	1		8260B	Total/NA
Xylenes, Total	2.8		1.0	0.26	ug/L	1		8260B	Total/NA
Isopropylbenzene	35		1.0	0.18	ug/L	1		8260B	Total/NA
N-Propylbenzene	38		1.0	0.15	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	0.10	J	1.0	0.10	ug/L	1		8260B	Total/NA
tert-Butylbenzene	1.2		1.0	0.080	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	0.14	J	1.0	0.14	ug/L	1		8260B	Total/NA
sec-Butylbenzene	3.8		1.0	0.12	ug/L	1		8260B	Total/NA
n-Butylbenzene	3.4		1.0	0.16	ug/L	1		8260B	Total/NA
Naphthalene	0.80	J	1.0	0.32	ug/L	1		8260B	Total/NA
Nitrobenzene	1.3	J	1.5	0.11	ug/L	1		8270C LL	Total/NA
2-Methylnaphthalene	3.3		1.5	0.069	ug/L	1		8270C LL	Total/NA
Acenaphthene	0.32	J	0.99	0.079	ug/L	1		8270C LL	Total/NA
Dibenzofuran	0.94	J	1.5	0.079	ug/L	1		8270C LL	Total/NA

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: DUP-1 (Continued)

Lab Sample ID: 600-54909-2

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Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	1.1	J	1.5	0.069	ug/L	1	-	8270C LL	Total/NA
Phenanthrene	0.31	J	1.5	0.059	ug/L	1		8270C LL	Total/NA
Di-n-butyl phthalate	0.29	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.47	JB	2.5	0.12	ug/L	1		8270C LL	Total/NA
Arsenic	0.032		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.040	JB	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.51		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0059	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Copper	0.0041	J	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.27		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.017		0.010	0.0018	mg/L	1		6010B	Total/NA
Zinc	0.0069	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-5

Lab Sample ID: 600-54909-3

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D Method	Prep Type
Benzene	160		5.0	0.40	ug/L	5	8260B	Total/NA
1,2-Dichloropropane	1.7	J	5.0	0.80	ug/L	5	8260B	Total/NA
Chloroform	1.4	J	5.0	0.65	ug/L	5	8260B	Total/NA
Toluene	1.8	J	5.0	0.75	ug/L	5	8260B	Total/NA
Ethylbenzene	3.0	J	5.0	0.55	ug/L	5	8260B	Total/NA
Xylenes, Total	4.9	J	5.0	1.3	ug/L	5	8260B	Total/NA
Isopropylbenzene	19		5.0	0.90	ug/L	5	8260B	Total/NA
N-Propylbenzene	23		5.0	0.75	ug/L	5	8260B	Total/NA
tert-Butylbenzene	0.97	J	5.0	0.40	ug/L	5	8260B	Total/NA
1,2,4-Trimethylbenzene	2.2	J	5.0	0.70	ug/L	5	8260B	Total/NA
sec-Butylbenzene	3.4	J	5.0	0.60	ug/L	5	8260B	Total/NA
n-Butylbenzene	4.5	J	5.0	0.80	ug/L	5	8260B	Total/NA
Naphthalene	15		5.0	1.6	ug/L	5	8260B	Total/NA
Methyl tert-butyl ether - DL	460		50	6.0	ug/L	50	8260B	Total/NA
Phenol	1.2	J	7.4	0.20	ug/L	5	8270C LL	Total/NA
2-Methylnaphthalene	260		7.4	0.34	ug/L	5	8270C LL	Total/NA
Acenaphthene	2.3	J	4.9	0.39	ug/L	5	8270C LL	Total/NA
Dibenzofuran	1.2	J	7.4	0.39	ug/L	5	8270C LL	Total/NA
Fluorene	4.2	J	7.4	0.34	ug/L	5	8270C LL	Total/NA
Phenanthrene	2.0	J	7.4	0.30	ug/L	5	8270C LL	Total/NA
C6-C12	2.8		1.9	0.81	mg/L	1	TX 1005	Total/NA
>C12-C28	16		1.9	0.93	mg/L	1	TX 1005	Total/NA
C6-C35	20		1.9	1.5	mg/L	1	TX 1005	Total/NA
Arsenic	0.19		0.010	0.0033	mg/L	1	6010B	Total/NA
Aluminum	0.034	JB	0.50	0.022	mg/L	1	6010B	Total/NA
Barium	0.45		0.020	0.0022	mg/L	1	6010B	Total/NA
Cobalt	0.0041	J	0.010	0.00063	mg/L	1	6010B	Total/NA
Copper	0.0057	J	0.010	0.0015	mg/L	1	6010B	Total/NA
Manganese	0.49		0.010	0.00084	mg/L	1	6010B	Total/NA
Nickel	0.0045	J	0.010	0.0018	mg/L	1	6010B	Total/NA
Lead	0.0044	J	0.010	0.0029	mg/L	1	6010B	Total/NA
Zinc	0.074	В	0.030	0.0022	mg/L	1	6010B	Total/NA

Client Sample ID: MW-11

Lab Sample ID: 600-54909-4

Analyte	Result Qualifier	MQL (Adj)	SDL Unit	Dil Fac D Method	Prep Type
cis-1,2-Dichloroethene	0.57 J	1.0	0.060 ug/L	1 8260B	Total/NA

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-11 (Continued)

Project/Site: R&H Oil

Lab Sample ID: 600-54909-4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	2.0		1.0	0.18	ug/L	1	-	8260B	Total/NA
Chloroform	0.35	J	1.0	0.13	ug/L	1		8260B	Total/NA
Tetrachloroethene	3.8		1.0	0.13	ug/L	1		8260B	Total/NA
2,4-Dichlorophenol	0.29	J	2.5	0.15	ug/L	1		8270C LL	Total/NA
Barium	0.13		0.020	0.0022	mg/L	1		6010B	Total/NA
Copper	0.0022	J	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.011		0.010	0.00084	mg/L	1		6010B	Total/NA
Vanadium	0.0074	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0044	JВ	0.030	0.0022	ma/L			6010B	Total/NA

Client Sample ID: MW-10 Lab Sample ID: 600-54909-5

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Di-n-butyl phthalate	0.17	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.18	JB	2.5	0.12	ug/L	1		8270C LL	Total/NA
Aluminum	0.30	JB	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.11		0.020	0.0022	mg/L	1		6010B	Total/NA
Copper	0.0027	J	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.080		0.010	0.00084	mg/L	1		6010B	Total/NA
Vanadium	0.0026	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0092	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-8 Lab Sample ID: 600-54909-6

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.17	J	1.0	0.12	ug/L	1	_	8260B	Total/NA
Benzene	0.23	J	1.0	0.080	ug/L	1		8260B	Total/NA
Di-n-butyl phthalate	1.5	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Arsenic	0.0044	J	0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.34	JB	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.30		0.020	0.0022	mg/L	1		6010B	Total/NA
Chromium	0.0018	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Manganese	0.45		0.010	0.00084	mg/L	1		6010B	Total/NA
Zinc	0.0037	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: DUP-2 Lab Sample ID: 600-54909-7

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.19	J	1.0	0.12	ug/L	1		8260B	Total/NA
Benzene	0.22	J	1.0	0.080	ug/L	1		8260B	Total/NA
Di-n-butyl phthalate	1.6	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.15	JB	2.5	0.12	ug/L	1		8270C LL	Total/NA
Arsenic	0.0045	J	0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.31	JB	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.30		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.00070	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Chromium	0.0020	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Manganese	0.44		0.010	0.00084	mg/L	1		6010B	Total/NA
Vanadium	0.0018	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0064	JB	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-7 Lab Sample ID: 600-54909-8

TestAmerica Houston 7/18/2012

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Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

Client Sample ID: MW-7 (Continued)

Lab Sample ID: 600-54909-8

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.4		1.0	0.12	ug/L	1	_	8260B	Total/NA
Benzene	0.14	J	1.0	0.080	ug/L	1		8260B	Total/NA
Di-n-butyl phthalate	0.19	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.20	JB	2.5	0.12	ug/L	1		8270C LL	Total/NA
Arsenic	0.0043	J	0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.084	JB	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.14		0.020	0.0022	mg/L	1		6010B	Total/NA
Copper	0.0049	J	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.019		0.010	0.00084	mg/L	1		6010B	Total/NA
Zinc	0.012	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-6

Lab Sample ID: 600-54909-9

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	9.1	J	250	7.5	ug/L	50		8260B	Total/NA
Toluene	65		50	7.5	ug/L	50		8260B	Total/NA
Ethylbenzene	580		50	5.5	ug/L	50		8260B	Total/NA
Xylenes, Total	1400		50	13	ug/L	50		8260B	Total/NA
Styrene	5.1	J	50	3.5	ug/L	50		8260B	Total/NA
Isopropylbenzene	42	J	50	9.0	ug/L	50		8260B	Total/NA
N-Propylbenzene	58		50	7.5	ug/L	50		8260B	Total/NA
1,3,5-Trimethylbenzene	110		50	5.0	ug/L	50		8260B	Total/NA
1,2,4-Trimethylbenzene	370		50	7.0	ug/L	50		8260B	Total/NA
n-Butylbenzene	12	J	50	8.0	ug/L	50		8260B	Total/NA
Naphthalene	330		50	16	ug/L	50		8260B	Total/NA
Benzene - DL	13000		1000	80	ug/L	1000		8260B	Total/NA
Phenol	13		7.4	0.20	ug/L	5		8270C LL	Total/NA
2,4-Dimethylphenol	53		12	1.5	ug/L	5		8270C LL	Total/NA
2-Methylnaphthalene	77		7.4	0.34	ug/L	5		8270C LL	Total/NA
Acenaphthene	0.75	J	4.9	0.39	ug/L	5		8270C LL	Total/NA
Phenanthrene	0.92	J	7.4	0.30	ug/L	5		8270C LL	Total/NA
C6-C12	9.6		2.0	0.81	mg/L	1		TX 1005	Total/NA
>C12-C28	4.6		2.0	0.94	mg/L	1		TX 1005	Total/NA
C6-C35	14		2.0	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.067		0.010	0.0033	mg/L	1	(6010B	Total/NA
Aluminum	0.053	JB	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.41		0.020	0.0022	mg/L	1	(6010B	Total/NA
Cobalt	0.0012	J	0.010	0.00063	mg/L	1	(6010B	Total/NA
Chromium	0.0023	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Copper	0.0029	J	0.010	0.0015	mg/L	1	(6010B	Total/NA
Manganese	0.72		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0055	J	0.010	0.0018	mg/L	1	500	6010B	Total/NA
Lead	0.011		0.010	0.0029	mg/L	1		6010B	Total/NA
Vanadium	0.0042	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.012	JВ	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 600-54909-10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type	
4-Methyl-2-pentanone (MIBK)	0.47	J	2.0	0.45	ug/L	1		8260B	Total/NA	

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Ethylbenzene

Xylenes, Total

Isopropylbenzene Bromobenzene

1,2,3-Trichloropropane

N-Propylbenzene

2-Chlorotoluene

4-Chlorotoluene

1,1,2,2-Tetrachloroethane

1,3,5-Trimethylbenzene

Styrene

Bromoform

1,1,1,2-Tetrachloroethane

Lab Sample ID: 600-54909-1

TestAmerica Job ID: 600-54909-1

Matrix: Water

Client Sample ID: MW-1 Date Collected: 05/11/12 07:15

Method: 8260B - Volatile Organi Analyte	•	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 20:47	•
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 20:47	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 20:47	•
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 20:47	ezazzae
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 20:47	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 20:47	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 20:47	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 20:47	1
Methyl tert-butyl ether	9.0		1.0	0.12	ug/L			05/15/12 20:47	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 20:47	1
lodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 20:47	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 20:47	
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 20:47	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 20:47	•
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 20:47	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 20:47	92002000
Benzene	11		1.0	0.080	ug/L			05/15/12 20:47	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 20:47	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 20:47	
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 20:47	•
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 20:47	1
1,2-Dichloropropane	5.9		1.0	0.16	ug/L			05/15/12 20:47	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 20:47	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 20:47	1
Chloroform	0.33	J	1.0	0.13	ug/L			05/15/12 20:47	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 20:47	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 20:47	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 20:47	04/03/4/03
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 20:47	1
Toluene	1.2		1.0	0.15	ug/L			05/15/12 20:47	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 20:47	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 20:47	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 20:47	
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 20:47	
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 20:47	
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 20:47	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 20:47	8.579/57/57/6
Chlorobenzene	0.12	U	1.0		ug/L			05/15/12 20:47	1

05/15/12 20:47

05/15/12 20:47

05/15/12 20:47

05/15/12 20:47

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05/15/12 20:47

05/15/12 20:47

05/15/12 20:47

05/15/12 20:47

05/15/12 20:47

05/15/12 20:47

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

0.18 U

0.47 J

2.6

0.070 U

0.19 U

0.19 U

0.29 U

0.22 U

0.13 U

0.14 U

0.10 U

31

29

0.18 ug/L

0.11 ug/L

0.26 ug/L

0.070 ug/L

0.19 ug/L

0.18 ug/L

0.19 ug/L

0.29 ug/L

0.22 ug/L

0.15 ug/L

0.13 ug/L

0.14 ug/L

0.10 ug/L

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

1,2,4-Trichlorobenzene

Hexachlorobutadiene

Naphthalene

Lab Sample ID: 600-54909-1

05/15/12 20:47

05/15/12 20:47

05/15/12 20:47

TestAmerica Job ID: 600-54909-1

Matrix: Water

Dil Fac

Client Sample ID: MW-1 Date Collected: 05/11/12 07:15 Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued) Analyte Result Qualifier SDL Unit D Prepared Analyzed tert-Butylbenzene 0.94 1.0 0.080 ug/L 05/15/12 20:47 4-Isopropyltoluene 0.10 U 1.0 0.10 ug/L 05/15/12 20:47 1,2,4-Trimethylbenzene 0.14 U 1.0 0.14 ug/L 05/15/12 20:47 1.0 0.12 ug/L 05/15/12 20:47 sec-Butylbenzene 2.9 1,3-Dichlorobenzene 0.13 U 1.0 0.13 ug/L 05/15/12 20:47 1.4-Dichlorobenzene 0.11 U 1.0 0.11 ug/L 05/15/12 20:47 1,2-Dichlorobenzene 0.10 U 1.0 0.10 ug/L 05/15/12 20:47 n-Butylbenzene 2.7 1.0 0.16 ug/L 05/15/12 20:47 1,2-Dibromo-3-Chloropropane 0.81 U 1.0 0.81 ug/L 05/15/12 20:47

0.31 U

0.17 U

0.78 J

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139	_	`	05/15/12 20:47	1
Dibromofluoromethane	80		62 - 130			05/15/12 20:47	1
Toluene-d8 (Surr)	92		70 - 130			05/15/12 20:47	1
1,2-Dichloroethane-d4 (Surr)	81		50 - 134			05/15/12 20:47	1

1.0

1.0

1.0

0.31 ug/L

0.17 ug/L

0.32 ug/L

1,2 Biomerostriano a 1 (San)	0,		00 - 707					00, 10, 12 20. 17	•
Method: 8270C LL - Semivolatil	•	oounds by (GCMS - Low Le		Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	
Phenol	0.039	U	1.5	0.039	ug/L		05/16/12 15:10	05/18/12 10:40	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 10:40	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 10:40	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/16/12 15:10	05/18/12 10:40	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/16/12 15:10	05/18/12 10:40	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/16/12 15:10	05/18/12 10:40	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/16/12 15:10	05/18/12 10:40	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/16/12 15:10	05/18/12 10:40	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 10:40	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 10:40	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 10:40	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 10:40	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/16/12 15:10	05/18/12 10:40	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/16/12 15:10	05/18/12 10:40	1
2-Methylnaphthalene	3.4		1.5	0.069	ug/L		05/16/12 15:10	05/18/12 10:40	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/18/12 10:40	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/18/12 10:40	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 10:40	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/18/12 10:40	1
Acenaphthene	0.44	J	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/16/12 15:10	05/18/12 10:40	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/16/12 15:10	05/18/12 10:40	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: MW-1

Date Collected: 05/11/12 07:15

Date Received: 05/12/12 09:42

Lab Sample ID: 600-54909-1

D Campic ID: 000-0-303-1

TestAmerica Job ID: 600-54909-1

Matrix: Water

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	0.93	J	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 10:40	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/16/12 15:10	05/18/12 10:40	1
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/16/12 15:10	05/18/12 10:40	1
Fluorene	1.2	J	1.5	0.069	ug/L		05/16/12 15:10	05/18/12 10:40	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/16/12 15:10	05/18/12 10:40	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/16/12 15:10	05/18/12 10:40	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/16/12 15:10	05/18/12 10:40	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 10:40	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/16/12 15:10	05/18/12 10:40	1
Phenanthrene	0.35	J	1.5	0.059	ug/L		05/16/12 15:10	05/18/12 10:40	1
Anthracene	0.16	J	0.99	0.049	ug/L		05/16/12 15:10	05/18/12 10:40	1
Di-n-butyl phthalate	0.31	J	2.5	0.11	ug/L		05/16/12 15:10	05/18/12 10:40	1
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 10:40	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/16/12 15:10	05/18/12 10:40	1
Butyl benzyl phthalate	0.57	JB	2.5	0.12	ug/L		05/16/12 15:10	05/18/12 10:40	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/16/12 15:10	05/18/12 10:40	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
Bis(2-ethylhexyl) phthalate	0.40	J	2.5	0.36	ug/L		05/16/12 15:10	05/18/12 10:40	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/16/12 15:10	05/18/12 10:40	1
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/16/12 15:10	05/18/12 10:40	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/16/12 15:10	05/18/12 10:40	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/16/12 15:10	05/18/12 10:40	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	23	8-	10 - 94				05/16/12 15:10	05/18/12 10:40	1
2,4,6-Tribromophenol	88		10 - 123				05/16/12 15:10	05/18/12 10:40	1
2-Fluorobiphenyl	79		43 - 116				05/16/12 15:10	05/18/12 10:40	1
2-Fluorophenol	38		10 - 100				05/16/12 15:10	05/18/12 10:40	1
Nitrobenzene-d5	74		35 - 114				05/16/12 15:10	05/18/12 10:40	1
Terphenyl-d14	77		33 - 141				05/16/12 15:10	05/18/12 10:40	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)											
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac		
C6-C12	0.81	U	2.0	0.81	mg/L		05/18/12 09:26	05/18/12 18:06	1		
>C12-C28	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/18/12 18:06	1		
>C28-C35	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/18/12 18:06	1		
C6-C35	1.5	U	2.0	1.5	mg/L		05/18/12 09:26	05/18/12 18:06	1		

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	100		70 - 130	05/18/12 09:26	05/18/12 18:06	

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.030		0.010	0.0033	mg/L	31 -31	05/15/12 11:24	05/16/12 10:56	1
Aluminum	0.077	JB	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 10:56	1
Barium	0.51		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 10:56	1
Cobalt	0.0026	J	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 10:56	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Lab Sample ID: 600-54909-1

Matrix: Water

Client Sample ID: MW-1 Date Collected: 05/11/12 07:15 Date Received: 05/12/12 09:42

Method: 6010B - Metals (ICP) (Continued) Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Analyzed Dil Fac Chromium 0.0016 U 0.010 0.0016 mg/L 05/15/12 11:24 05/16/12 10:56 0.010 0.0015 mg/L 05/15/12 11:24 05/16/12 10:56 Copper 0.0030 J Manganese 0.27 0.010 0.00084 mg/L 05/15/12 11:24 05/16/12 10:56 0.010 0.0018 mg/L 05/15/12 11:24 05/16/12 10:56 **Nickel** 0.0087 J 0.0029 mg/L Lead 0.0029 U 0.010 05/15/12 11:24 05/16/12 10:56 Selenium 0.0042 U 0.040 0.0042 mg/L 05/15/12 11:24 05/16/12 10:56 Thallium 0.0078 U 0.030 0.0078 mg/L 05/15/12 11:24 05/16/12 10:56 Vanadium 0.0017 U 0.010 0.0017 mg/L 05/15/12 11:24 05/16/12 10:56 0.030 0.0022 mg/L 05/15/12 11:24 05/16/12 10:56 Zinc 0.0058 JB

 Method: 7470A - Mercury (CVAA)
 Result
 Qualifier
 MQL (Adj)
 SDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Mercury
 0.000026
 U
 0.000026
 mg/L
 05/16/12 07:31
 05/16/12 12:52
 1

Client Sample ID: DUP-1 Lab Sample ID: 600-54909-2

Date Collected: 05/11/12 07:15 Matrix: Water

Date Received: 05/12/12 09:42

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 21:16	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 21:16	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 21:16	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 21:16	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 21:16	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 21:16	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 21:16	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 21:16	1
Methyl tert-butyl ether	9.5		1.0	0.12	ug/L			05/15/12 21:16	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 21:16	1
lodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 21:16	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 21:16	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 21:16	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 21:16	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 21:16	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 21:16	1
Benzene	12		1.0	0.080	ug/L			05/15/12 21:16	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 21:16	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 21:16	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 21:16	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 21:16	1
1,2-Dichloropropane	6.9		1.0	0.16	ug/L			05/15/12 21:16	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 21:16	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 21:16	1
Chloroform	0.54	J	1.0	0.13	ug/L			05/15/12 21:16	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 21:16	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 21:16	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 21:16	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 21:16	1
Toluene	1.4		1.0	0.15	ug/L			05/15/12 21:16	1
trans-1,3-Dichloropropene	0.21	Ū	1.0	0.21	ug/L			05/15/12 21:16	04/54/54 1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54909-2

TestAmerica Job ID: 600-54909-1

Matrix: Water

Client Sample ID: DUP-1

Date Collected: 05/11/12 07:15 Date Received: 05/12/12 09:42

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 21:16	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 21:16	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 21:16	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 21:16	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 21:16	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 21:16	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 21:16	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 21:16	1
Ethylbenzene	0.51	J	1.0	0.11	ug/L			05/15/12 21:16	1
Xylenes, Total	2.8		1.0	0.26	ug/L			05/15/12 21:16	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 21:16	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 21:16	1
Isopropylbenzene	35		1.0	0.18	ug/L			05/15/12 21:16	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 21:16	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 21:16	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 21:16	1
N-Propylbenzene	38		1.0	0.15	ug/L			05/15/12 21:16	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 21:16	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 21:16	1
1,3,5-Trimethylbenzene	0.10	J	1.0	0.10	ug/L			05/15/12 21:16	1
tert-Butylbenzene	1.2		1.0	0.080	ug/L			05/15/12 21:16	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 21:16	1
1,2,4-Trimethylbenzene	0.14	J	1.0	0.14	ug/L			05/15/12 21:16	1
sec-Butylbenzene	3.8		1.0	0.12	ug/L			05/15/12 21:16	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 21:16	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 21:16	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 21:16	1
n-Butylbenzene	3.4		1.0	0.16	ug/L			05/15/12 21:16	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 21:16	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 21:16	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 21:16	1
Naphthalene	0.80	J	1.0	0.32	ug/L			05/15/12 21:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139			-		05/15/12 21:16	1
Dibromofluoromethane	81		62 - 130					05/15/12 21:16	1
Toluene-d8 (Surr)	90		70 - 130					05/15/12 21:16	1
1,2-Dichloroethane-d4 (Surr)	81		50 - 134					05/15/12 21:16	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 11:06	1
Phenol	0.039	U	1.5	0.039	ug/L		05/16/12 15:10	05/18/12 11:06	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 11:06	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 11:06	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/16/12 15:10	05/18/12 11:06	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/16/12 15:10	05/18/12 11:06	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/16/12 15:10	05/18/12 11:06	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/16/12 15:10	05/18/12 11:06	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/16/12 15:10	05/18/12 11:06	1
Nitrobenzene	1.3	J	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 11:06	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: DUP-1

Date Collected: 05/11/12 07:15

Lab Sample ID: 600-54909-2

Matrix: Water

Date Collected: 05/11/12 07:15

Date Received: 05/12/12 09:42

Matr

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 11:06	
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/16/12 15:10	05/18/12 11:06	
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 11:06	
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 11:06	
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 11:06	
4-Chloroaniline	0.21	Ü	0.99	0.21	ug/L		05/16/12 15:10	05/18/12 11:06	
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/16/12 15:10	05/18/12 11:06	
2-Methylnaphthalene	3.3		1.5	0.069	ug/L		05/16/12 15:10	05/18/12 11:06	
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 11:06	
2,4,6-Trichlorophenol	0.18	U	2.0		ug/L		05/16/12 15:10	05/18/12 11:06	
2,4,5-Trichlorophenol	0.25	U	2.0		ug/L		05/16/12 15:10	05/18/12 11:06	
2-Chloronaphthalene	0.079		1.5	0.079			05/16/12 15:10	05/18/12 11:06	
2-Nitroaniline	0.19		2.5	0.19	-		05/16/12 15:10	05/18/12 11:06	
Dimethyl phthalate	0.069		2.5	0.069	-		05/16/12 15:10	05/18/12 11:06	
Acenaphthylene	0.059		0.99	0.059			05/16/12 15:10	05/18/12 11:06	
2,6-Dinitrotoluene	0.079		0.99	0.079	-		05/16/12 15:10	05/18/12 11:06	
3-Nitroaniline	0.079		2.5	0.079	-		05/16/12 15:10	05/18/12 11:06	
Acenaphthene	0.10		0.99	0.10			05/16/12 15:10	05/18/12 11:06	
	0.32		4.9	0.079	•		05/16/12 15:10	05/18/12 11:06	
2,4-Dinitrophenol	0.55		2.5		-				
4-Nitrophenol					ug/L		05/16/12 15:10	05/18/12 11:06	
Dibenzofuran	0.94		1.5	0.079	•		05/16/12 15:10	05/18/12 11:06	
2,4-Dinitrotoluene	0.13		1.5		ug/L		05/16/12 15:10	05/18/12 11:06	
Diethyl phthalate	1.5		2.5		ug/L		05/16/12 15:10	05/18/12 11:06	
4-Chlorophenyl phenyl ether	0.099		1.5	0.099			05/16/12 15:10	05/18/12 11:06	
Fluorene	1.1		1.5	0.069	-		05/16/12 15:10	05/18/12 11:06	
4-Nitroaniline	0.25		2.5		ug/L		05/16/12 15:10	05/18/12 11:06	
4,6-Dinitro-2-methylphenol	0.82		2.5		ug/L		05/16/12 15:10	05/18/12 11:06	
4-Bromophenyl phenyl ether	0.099		1.5	0.099	•		05/16/12 15:10	05/18/12 11:06	
Hexachlorobenzene	0.11		1.5		ug/L		05/16/12 15:10	05/18/12 11:06	
Pentachlorophenol	0.60	U	2.5		ug/L		05/16/12 15:10	05/18/12 11:06	
Phenanthrene	0.31	J	1.5	0.059			05/16/12 15:10	05/18/12 11:06	
Anthracene	0.049	U	0.99	0.049	ug/L		05/16/12 15:10	05/18/12 11:06	
Di-n-butyl phthalate	0.29	J	2.5	0.11	ug/L		05/16/12 15:10	05/18/12 11:06	
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 11:06	
Pyrene	0.11	U	2.0	0.11	ug/L		05/16/12 15:10	05/18/12 11:06	
Butyl benzyl phthalate	0.47	JB	2.5	0.12	ug/L		05/16/12 15:10	05/18/12 11:06	
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/16/12 15:10	05/18/12 11:06	
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/16/12 15:10	05/18/12 11:06	
Bis(2-ethylhexyl) phthalate	0.36	U	2.5	0.36	ug/L		05/16/12 15:10	05/18/12 11:06	
Chrysene	0.079	U	1.5	0.079			05/16/12 15:10	05/18/12 11:06	
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/16/12 15:10	05/18/12 11:06	
Benzo[b]fluoranthene	0.069	U	2.0	0.069			05/16/12 15:10	05/18/12 11:06	
Benzo[k]fluoranthene	0.089		2.0	0.089	•		05/16/12 15:10	05/18/12 11:06	
Benzo[a]pyrene	0.079		1.5	0.079	-		05/16/12 15:10	05/18/12 11:06	
ndeno[1,2,3-cd]pyrene	0.069		2.0	0.069			05/16/12 15:10	05/18/12 11:06	
Dibenz(a,h)anthracene	0.079		2.5	0.079	_		05/16/12 15:10	05/18/12 11:06	
Benzo[g,h,i]perylene	0.079		2.5	0.079	-		05/16/12 15:10	05/18/12 11:06	
Surrogato	9/ Bassya	Qualifica	l imite				Dronarad	Analyzad	חוור
Surrogate Phenol-d6	%Recovery	Quanner	10 - 94				Prepared 05/16/12 15:10	Analyzed 05/18/12 11:06	Dil F
2,4,6-Tribromophenol	82		10 - 94 10 - 123				05/16/12 15:10	05/18/12 11:06	

TestAmerica Job ID: 600-54909-1

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: DUP-1

Date Collected: 05/11/12 07:15

Date Received: 05/12/12 09:42

Project/Site: R&H Oil

Lab Sample ID: 600-54909-2

TestAmerica Job ID: 600-54909-1

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		43 - 116	05/16/12 15:10	05/18/12 11:06	1
2-Fluorophenol	34		10 - 100	05/16/12 15:10	05/18/12 11:06	1
Nitrobenzene-d5	67		35 - 114	05/16/12 15:10	05/18/12 11:06	1
Terphenyl-d14	75		33 - 141	05/16/12 15:10	05/18/12 11:06	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.81	U	1.9	0.81	mg/L		05/18/12 09:26	05/18/12 18:41	1
>C12-C28	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 18:41	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 18:41	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/18/12 09:26	05/18/12 18:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	92		70 - 130	05/18/12 09:26	05/18/12 18:41	1

Method: 6010B - Metals (ICP)

metriod. of tob - metals (for)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.032	×	0.010	0.0033	mg/L	21 -21	05/15/12 11:24	05/16/12 10:58	1
Aluminum	0.040	JB	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 10:58	1
Barium	0.51		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 10:58	1
Cobalt	0.0059	J	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 10:58	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 10:58	1
Copper	0.0041	J	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 10:58	1
Manganese	0.27		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 10:58	1
Nickel	0.017		0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 10:58	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 10:58	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 10:58	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 10:58	1
Vanadium	0.0017	U	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 10:58	1
Zinc	0.0069	JB	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 10:58	1

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit)	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L	 	05/16/12 07:31	05/16/12 12:54	1

Client Sample ID: MW-5 Lab Sample ID: 600-54909-3

Date Collected: 05/11/12 08:15 Matrix: Water Date Received: 05/12/12 09:42

Method: 8260B - Volatile Orga Analyte	•	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.60	U	5.0	0.60	ug/L			05/15/12 15:05	5
Chloromethane	0.90	U	10	0.90	ug/L			05/15/12 15:05	5
Vinyl chloride	0.55	U	10	0.55	ug/L			05/15/12 15:05	5
Bromomethane	1.3	U	10	1.3	ug/L			05/15/12 15:05	5
Chloroethane	0.40	U	10	0.40	ug/L			05/15/12 15:05	5
Trichlorofluoromethane	0.40	U	5.0	0.40	ug/L			05/15/12 15:05	5
1,1-Dichloroethene	0.95	U	5.0	0.95	ug/L			05/15/12 15:05	5
trans-1,2-Dichloroethene	0.45	U	5.0	0.45	ug/L			05/15/12 15:05	5
Acetone	5.0	U	25	5.0	ug/L			05/15/12 15:05	5
lodomethane	10	U	10	10	ug/L			05/15/12 15:05	5
Carbon disulfide	1.2	U	10	1.2	ug/L			05/15/12 15:05	5

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Lab Sample ID: 600-54909-3

Matrix: Water

Client Sample ID: MW-5

Date Collected: 05/11/12 08:15 Date Received: 05/12/12 09:42

Analyte	c Compounds (Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
Methylene Chloride	0.75	U	25	0.75	ug/L		· · · ·	05/15/12 15:05	
cis-1,2-Dichloroethene	0.30		5.0	0.30	ug/L			05/15/12 15:05	
2-Butanone (MEK)	3.8	U	10		ug/L			05/15/12 15:05	
Carbon tetrachloride	0.75		5.0		ug/L			05/15/12 15:05	
Benzene	160		5.0		ug/L			05/15/12 15:05	1252252
1,2-Dichloroethane	0.70	U	5.0		ug/L			05/15/12 15:05	
Trichloroethene	0.90		5.0		ug/L			05/15/12 15:05	
1,1,1-Trichloroethane	0.75		5.0		ug/L			05/15/12 15:05	
1,1-Dichloroethane	0.55		5.0		ug/L			05/15/12 15:05	
1,2-Dichloropropane	1.7		5.0		ug/L			05/15/12 15:05	
2,2-Dichloropropane	0.65		5.0		ug/L			05/15/12 15:05	
Dibromomethane	2.6		5.0		ug/L			05/15/12 15:05	
Chloroform	1.4		5.0		ug/L			05/15/12 15:05	
Bromodichloromethane	0.80		5.0		ug/L			05/15/12 15:05	
1,1-Dichloropropene	1.1		5.0		ug/L			05/15/12 15:05	į
cis-1,3-Dichloropropene	0.90		5.0		ug/L			05/15/12 15:05	į
4-Methyl-2-pentanone (MIBK)	2.3		3.0 10		ug/L			05/15/12 15:05	
	1.8		5.0		ug/L			05/15/12 15:05	į
Toluene	1.0		5.0					05/15/12 15:05	
trans-1,3-Dichloropropene					ug/L				
1,1,2-Trichloroethane	1.4		5.0		ug/L			05/15/12 15:05	
Tetrachloroethene	0.65		5.0		ug/L			05/15/12 15:05	
1,3-Dichloropropane	1.1		5.0		ug/L			05/15/12 15:05	
2-Hexanone	1.8		10		ug/L			05/15/12 15:05	
Dibromochloromethane	0.75		5.0		ug/L			05/15/12 15:05	
1,2-Dibromoethane	0.90		5.0		ug/L			05/15/12 15:05	
Chlorobenzene	0.60		5.0		ug/L			05/15/12 15:05	į.
1,1,1,2-Tetrachloroethane	0.90		5.0		•			05/15/12 15:05	
Ethylbenzene	3.0		5.0		ug/L			05/15/12 15:05	
Xylenes, Total	4.9		5.0		ug/L			05/15/12 15:05	ţ
Styrene	0.35		5.0		ug/L			05/15/12 15:05	
Bromoform	0.95	U	5.0		ug/L			05/15/12 15:05	
Isopropylbenzene	19		5.0		ug/L			05/15/12 15:05	į.
Bromobenzene	0.95		5.0		ug/L			05/15/12 15:05	
1,2,3-Trichloropropane	1.5	U	5.0		ug/L			05/15/12 15:05	
1,1,2,2-Tetrachloroethane	1.1	U	5.0		ug/L			05/15/12 15:05	į
N-Propylbenzene	23		5.0		ug/L			05/15/12 15:05	;
2-Chlorotoluene	0.65		5.0		ug/L			05/15/12 15:05	
4-Chlorotoluene	0.70	U	5.0		ug/L			05/15/12 15:05	
1,3,5-Trimethylbenzene	0.50	U	5.0		ug/L			05/15/12 15:05	
tert-Butylbenzene	0.97	J	5.0		ug/L			05/15/12 15:05	
4-Isopropyltoluene	0.50	U	5.0	0.50	ug/L			05/15/12 15:05	
1,2,4-Trimethylbenzene	2.2	J	5.0	0.70	ug/L			05/15/12 15:05	
sec-Butylbenzene	3.4	J	5.0	0.60	ug/L			05/15/12 15:05	į.
1,3-Dichlorobenzene	0.65	U	5.0	0.65	ug/L			05/15/12 15:05	
1,4-Dichlorobenzene	0.55	U	5.0	0.55	ug/L			05/15/12 15:05	
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/L			05/15/12 15:05	
n-Butylbenzene	4.5	J	5.0	0.80	ug/L			05/15/12 15:05	
1,2-Dibromo-3-Chloropropane	4.1	U	5.0	4.1	ug/L			05/15/12 15:05	
1,2,4-Trichlorobenzene	1.6	U	5.0	1.6	ug/L			05/15/12 15:05	į
Hexachlorobutadiene	0.85	U	5.0	0.85	ug/L			05/15/12 15:05	
Naphthalene	15		5.0		ug/L			05/15/12 15:05	į

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54909-3

TestAmerica Job ID: 600-54909-1

Matrix: Water

Client Sample ID: MW-5

Date Collected: 05/11/12 08:15 Date Received: 05/12/12 09:42

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100	·	67 - 139		05/15/12 15:05	5
Dibromofluoromethane	81		62 - 130		05/15/12 15:05	5
Toluene-d8 (Surr)	87		70 - 130		05/15/12 15:05	5
1,2-Dichloroethane-d4 (Surr)	74		50 - 134		05/15/12 15:05	5

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	460	S P	50	6.0	ug/L			05/15/12 04:23	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139			-		05/15/12 04:23	50
Dibromofluoromethane	80		62 - 130					05/15/12 04:23	50
Toluene-d8 (Surr)	88		70 - 130					05/15/12 04:23	50
1,2-Dichloroethane-d4 (Surr)	75		50 - 134					05/15/12 04:23	50

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
Phenol	1.2	J	7.4	0.20	ug/L		05/16/12 15:10	05/18/12 11:32	5
Bis(2-chloroethyl)ether	0.74	U	7.4	0.74	ug/L		05/16/12 15:10	05/18/12 11:32	5
2-Chlorophenol	0.64	U	9.9	0.64	ug/L		05/16/12 15:10	05/18/12 11:32	5
Benzyl alcohol	0.84	U	27	0.84	ug/L		05/16/12 15:10	05/18/12 11:32	5
Bis(2-chloroisopropyl) ether	2.0	U	7.4	2.0	ug/L		05/16/12 15:10	05/18/12 11:32	5
3 & 4 Methylphenol	0.99	U	4.9	0.99	ug/L		05/16/12 15:10	05/18/12 11:32	5
N-Nitrosodi-n-propylamine	0.49	U	12	0.49	ug/L		05/16/12 15:10	05/18/12 11:32	5
Hexachloroethane	0.49	U	9.9	0.49	ug/L		05/16/12 15:10	05/18/12 11:32	5
Nitrobenzene	0.54	U	7.4	0.54	ug/L		05/16/12 15:10	05/18/12 11:32	5
Isophorone	0.54	U	7.4	0.54	ug/L		05/16/12 15:10	05/18/12 11:32	5
2-Nitrophenol	1.1	U	4.9	1.1	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,4-Dimethylphenol	1.5	Ü	12	1.5	ug/L		05/16/12 15:10	05/18/12 11:32	5
Bis(2-chloroethoxy)methane	0.64	U	7.4	0.64	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,4-Dichlorophenol	0.74	U	12	0.74	ug/L		05/16/12 15:10	05/18/12 11:32	5
4-Chloroaniline	1.0	U	4.9	1.0	ug/L		05/16/12 15:10	05/18/12 11:32	5
4-Chloro-3-methylphenol	0.84	U	4.9	0.84	ug/L		05/16/12 15:10	05/18/12 11:32	5
2-Methylnaphthalene	260		7.4	0.34	ug/L		05/16/12 15:10	05/18/12 11:32	5
Hexachlorocyclopentadiene	0.64	U	7.4	0.64	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,4,6-Trichlorophenol	0.89	U	9.9	0.89	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,4,5-Trichlorophenol	1.2	U	9.9	1.2	ug/L		05/16/12 15:10	05/18/12 11:32	5
2-Chloronaphthalene	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
2-Nitroaniline	0.94	U	12	0.94	ug/L		05/16/12 15:10	05/18/12 11:32	5
Dimethyl phthalate	0.34	U	12	0.34	ug/L		05/16/12 15:10	05/18/12 11:32	5
Acenaphthylene	0.30	Ü	4.9	0.30	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,6-Dinitrotoluene	0.39	U	4.9	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
3-Nitroaniline	0.79	U	12	0.79	ug/L		05/16/12 15:10	05/18/12 11:32	5
Acenaphthene	2.3	J	4.9	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,4-Dinitrophenol	1.9	U	25	1.9	ug/L		05/16/12 15:10	05/18/12 11:32	5
4-Nitrophenol	2.8	U	12	2.8	ug/L		05/16/12 15:10	05/18/12 11:32	5
Dibenzofuran	1.2	J	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,4-Dinitrotoluene	0.64	U	7.4		ug/L		05/16/12 15:10	05/18/12 11:32	5
Diethyl phthalate	7.4	U	12	7.4	ug/L		05/16/12 15:10	05/18/12 11:32	5
4-Chlorophenyl phenyl ether	0.49	U	7.4		ug/L		05/16/12 15:10	05/18/12 11:32	5
Fluorene	4.2	J	7.4		ug/L		05/16/12 15:10	05/18/12 11:32	5

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: MW-5

Date Collected: 05/11/12 08:15

Date Received: 05/12/12 09:42

Lab Sample ID: 600-54909-3

TestAmerica Job ID: 600-54909-1

Matrix: Water

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	1.2	U	12	1.2	ug/L		05/16/12 15:10	05/18/12 11:32	
4,6-Dinitro-2-methylphenol	4.1	U	12	4.1	ug/L		05/16/12 15:10	05/18/12 11:32	5
4-Bromophenyl phenyl ether	0.49	U	7.4	0.49	ug/L		05/16/12 15:10	05/18/12 11:32	5
Hexachlorobenzene	0.54	U	7.4	0.54	ug/L		05/16/12 15:10	05/18/12 11:32	5
Pentachlorophenol	3.0	U	12	3.0	ug/L		05/16/12 15:10	05/18/12 11:32	5
Phenanthrene	2.0	J	7.4	0.30	ug/L		05/16/12 15:10	05/18/12 11:32	5
Anthracene	0.25	U	4.9	0.25	ug/L		05/16/12 15:10	05/18/12 11:32	5
Di-n-butyl phthalate	0.54	U	12	0.54	ug/L		05/16/12 15:10	05/18/12 11:32	5
Fluoranthene	0.34	U	12	0.34	ug/L		05/16/12 15:10	05/18/12 11:32	5
Pyrene	0.54	U	9.9	0.54	ug/L		05/16/12 15:10	05/18/12 11:32	5
Butyl benzyl phthalate	0.59	U	12	0.59	ug/L		05/16/12 15:10	05/18/12 11:32	5
3,3'-Dichlorobenzidine	0.89	U	49	0.89	ug/L		05/16/12 15:10	05/18/12 11:32	5
Benzo[a]anthracene	0.39	U	9.9	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
Bis(2-ethylhexyl) phthalate	1.8	U	12	1.8	ug/L		05/16/12 15:10	05/18/12 11:32	5
Chrysene	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
Di-n-octyl phthalate	0.79	U	25	0.79	ug/L		05/16/12 15:10	05/18/12 11:32	5
Benzo[b]fluoranthene	0.34	U	9.9	0.34	ug/L		05/16/12 15:10	05/18/12 11:32	5
Benzo[k]fluoranthene	0.44	U	9.9	0.44	ug/L		05/16/12 15:10	05/18/12 11:32	5
Benzo[a]pyrene	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
Indeno[1,2,3-cd]pyrene	0.34	U	9.9	0.34	ug/L		05/16/12 15:10	05/18/12 11:32	5
Dibenz(a,h)anthracene	0.39	U	12	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
Benzo[g,h,i]perylene	0.39	U	12	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	22) 	10 - 94				05/16/12 15:10	05/18/12 11:32	5
2,4,6-Tribromophenol	87		10 - 123				05/16/12 15:10	05/18/12 11:32	5
2-Fluorobiphenyl	83		43 - 116				05/16/12 15:10	05/18/12 11:32	5
2-Fluorophenol	35		10 - 100				05/16/12 15:10	05/18/12 11:32	5
Nitrobenzene-d5	92		35 - 114				05/16/12 15:10	05/18/12 11:32	5
Terphenyl-d14	78		33 - 141				05/16/12 15:10	05/18/12 11:32	5
Method: TX 1005 - Texas - Tot	al Petroleum Hyd	rocarbon (GC)						
Analyte	•	Qualifier	MQL (Adi)	SDI	Unit	D	Prepared	Analyzed	Dil Fac

Method: TX 1005 - Texas -	- Total Petroleum Hyd	rocarbon (0	GC)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	2.8		1.9	0.81	mg/L		05/18/12 09:26	05/18/12 19:16	1
>C12-C28	16		1.9	0.93	mg/L		05/18/12 09:26	05/18/12 19:16	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 19:16	1
C6-C35	20		1.9	1.5	mg/L		05/18/12 09:26	05/18/12 19:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	108	\$.	70 - 130				05/18/12 09:26	05/18/12 19:16	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.19	-	0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:01	1
Aluminum	0.034	J B	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:01	1
Barium	0.45		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:01	1
Cobalt	0.0041	J	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:01	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:01	1
Copper	0.0057	J	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:01	1
Manganese	0.49		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:01	1
Nickel	0.0045	J	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:01	1
Lead	0.0044	J	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:01	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Lab Sample ID: 600-54909-3

05/16/12 12:56

05/16/12 07:31

Matrix: Water

Client Sample ID: MW-5 Date Collected: 05/11/12 08:15

Date Received: 05/12/12 09:42

Method: 6010B - Metals (ICP) (Contin	nued)								
Analyte	•	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:01	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:01	1
Vanadium	0.0017	U	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:01	1
Zinc	0.074	В	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:01	1
Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: MW-11 Lab Sample ID: 600-54909-4

0.000026 mg/L

0.00020

0.000026 U

Date Collected: 05/11/12 09:20 Matrix: Water

Date Received: 05/12/12 09:42

Mercury

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 02:58	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 02:58	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 02:58	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 02:58	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 02:58	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 02:58	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 02:58	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 02:58	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/15/12 02:58	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 02:58	1
lodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 02:58	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 02:58	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 02:58	1
cis-1,2-Dichloroethene	0.57	J	1.0	0.060	ug/L			05/15/12 02:58	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 02:58	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 02:58	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 02:58	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 02:58	1
Trichloroethene	2.0		1.0	0.18	ug/L			05/15/12 02:58	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 02:58	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 02:58	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 02:58	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 02:58	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 02:58	1
Chloroform	0.35	J	1.0	0.13	ug/L			05/15/12 02:58	
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 02:58	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 02:58	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 02:58	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 02:58	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 02:58	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 02:58	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 02:58	1
Tetrachloroethene	3.8		1.0	0.13	ug/L			05/15/12 02:58	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 02:58	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 02:58	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 02:58	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Dibromofluoromethane

1,2-Dichloroethane-d4 (Surr)

Toluene-d8 (Surr)

Lab Sample ID: 600-54909-4

TestAmerica Job ID: 600-54909-1

Matrix: Water

Client Sample ID: MW-11 Date Collected: 05/11/12 09:20

Date Received: 05/12/12 09:42

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L		31	05/15/12 02:58	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 02:58	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 02:58	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 02:58	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 02:58	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 02:58	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 02:58	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 02:58	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 02:58	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 02:58	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 02:58	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 02:58	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 02:58	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 02:58	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 02:58	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 02:58	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 02:58	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 02:58	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 02:58	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 02:58	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 02:58	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 02:58	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 02:58	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 02:58	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 02:58	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 02:58	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 02:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94	9	67 - 139			=		05/15/12 02:58	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
Phenol	0.040	U	1.5	0.040	ug/L		05/16/12 15:10	05/18/12 12:52	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 12:52	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 12:52	1
Benzyl alcohol	0.17	U	5.5	0.17	ug/L		05/16/12 15:10	05/18/12 12:52	1
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/16/12 15:10	05/18/12 12:52	1
3 & 4 Methylphenol	0.20	U	1.0	0.20	ug/L		05/16/12 15:10	05/18/12 12:52	1
N-Nitrosodi-n-propylamine	0.10	U	2.5	0.10	ug/L		05/16/12 15:10	05/18/12 12:52	1
Hexachloroethane	0.10	U	2.0	0.10	ug/L		05/16/12 15:10	05/18/12 12:52	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 12:52	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 12:52	1
2-Nitrophenol	0.22	U	1.0	0.22	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 12:52	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,4-Dichlorophenol	0.29	J	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 12:52	1

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70 - 130

50 - 134

81

87

77

05/15/12 02:58

05/15/12 02:58

05/15/12 02:58

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54909-4

TestAmerica Job ID: 600-54909-1

Matrix: Water

Client Sample ID: MW-11

Date Collected: 05/11/12 09:20 Date Received: 05/12/12 09:42

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	0.21	U	1.0	0.21	ug/L		05/16/12 15:10	05/18/12 12:52	1
4-Chloro-3-methylphenol	0.17	U	1.0	0.17	ug/L		05/16/12 15:10	05/18/12 12:52	1
2-Methylnaphthalene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/18/12 12:52	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/18/12 12:52	1
2-Chloronaphthalene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/18/12 12:52	1
Dimethyl phthalate	0.070	U	2.5	0.070	ug/L		05/16/12 15:10	05/18/12 12:52	1
Acenaphthylene	0.060	U	1.0	0.060	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,6-Dinitrotoluene	0.080	U	1.0	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/18/12 12:52	1
Acenaphthene	0.080	U	1.0	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,4-Dinitrophenol	0.39	U	5.0	0.39	ug/L		05/16/12 15:10	05/18/12 12:52	1
4-Nitrophenol	0.56	U	2.5	0.56	ug/L		05/16/12 15:10	05/18/12 12:52	1
Dibenzofuran	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 12:52	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/16/12 15:10	05/18/12 12:52	1
4-Chlorophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/16/12 15:10	05/18/12 12:52	1
Fluorene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/18/12 12:52	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/16/12 15:10	05/18/12 12:52	1
4,6-Dinitro-2-methylphenol	0.83	U	2.5	0.83	ug/L		05/16/12 15:10	05/18/12 12:52	1
4-Bromophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/16/12 15:10	05/18/12 12:52	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 12:52	1
Pentachlorophenol	0.61	U	2.5	0.61	ug/L		05/16/12 15:10	05/18/12 12:52	1
Phenanthrene	0.060	U	1.5	0.060	ug/L		05/16/12 15:10	05/18/12 12:52	1
Anthracene	0.050	U	1.0	0.050	ug/L		05/16/12 15:10	05/18/12 12:52	1
Di-n-butyl phthalate	0.11	U	2.5	0.11	ug/L		05/16/12 15:10	05/18/12 12:52	1
Fluoranthene	0.070	U	2.5	0.070	ug/L		05/16/12 15:10	05/18/12 12:52	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/16/12 15:10	05/18/12 12:52	1
Butyl benzyl phthalate	0.12	U	2.5	0.12	ug/L		05/16/12 15:10	05/18/12 12:52	1
3,3'-Dichlorobenzidine	0.18	U	10	0.18	ug/L		05/16/12 15:10	05/18/12 12:52	1
Benzo[a]anthracene	0.080	U	2.0	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
Bis(2-ethylhexyl) phthalate	0.37	U	2.5		ug/L		05/16/12 15:10	05/18/12 12:52	1
Chrysene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
Di-n-octyl phthalate	0.16	U	5.0	0.16	ug/L		05/16/12 15:10	05/18/12 12:52	1
Benzo[b]fluoranthene	0.070	U	2.0	0.070			05/16/12 15:10	05/18/12 12:52	1
Benzo[k]fluoranthene	0.090		2.0				05/16/12 15:10	05/18/12 12:52	1
Benzo[a]pyrene	0.080		1.5	0.080	•		05/16/12 15:10	05/18/12 12:52	1
Indeno[1,2,3-cd]pyrene	0.070		2.0	0.070			05/16/12 15:10	05/18/12 12:52	1
Dibenz(a,h)anthracene	0.080		2.5	0.080	_		05/16/12 15:10	05/18/12 12:52	1
Benzo[g,h,i]perylene	0.080		2.5	0.080	•		05/16/12 15:10	05/18/12 12:52	1
Surrogate	%Recovery	Qualifier	l imits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	16	10 - 94	05/16/12 15:10	05/18/12 12:52	1
2,4,6-Tribromophenol	69	10 - 123	05/16/12 15:10	05/18/12 12:52	1
2-Fluorobiphenyl	60	43 - 116	05/16/12 15:10	05/18/12 12:52	1
2-Fluorophenol	26	10 - 100	05/16/12 15:10	05/18/12 12:52	1
Nitrobenzene-d5	59	35 - 114	05/16/12 15:10	05/18/12 12:52	1
Terphenyl-d14	78	33 - 141	05/16/12 15:10	05/18/12 12:52	1

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-11

Date Collected: 05/11/12 09:20

Project/Site: R&H Oil

o-Terphenyl

Lab Sample ID: 600-54909-4

TestAmerica Job ID: 600-54909-1

ampic ib. 000-04303-4

Matrix: Water

Date Received: 05/12/12 09:42

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Method: TX 1005 - Tex	as - Total Petroleum Hyd	rocarbon (0	GC)						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.82	U	2.0	0.82	mg/L		05/18/12 09:26	05/18/12 20:59	1
>C12-C28	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/18/12 20:59	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/18/12 20:59	1
C6-C35	1.5	U	2.0	1.5	mg/L		05/18/12 09:26	05/18/12 20:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

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Method: 6010B - Metals (ICP)									
Analyte	Result Q	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033 U	J	0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:10	1
Aluminum	0.022 U	J	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:10	1
Barium	0.13		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:10	1
Cobalt	0.00063 U	J	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:10	1
Chromium	0.0016 U	J	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:10	1
Copper	0.0022 J	l	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:10	1
Manganese	0.011		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:10	1
Nickel	0.0018 U	J	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:10	1
Lead	0.0029 U	J	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:10	1
Selenium	0.0042 U	J	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:10	1
Thallium	0.0078 U	J	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:10	1
Vanadium	0.0074 J	l	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:10	1
Zinc	0.0044 J	В	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:10	1

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 13:01	1

Client Sample ID: MW-10 Lab Sample ID: 600-54909-5

Date Collected: 05/11/12 10:30 Matrix: Water
Date Received: 05/12/12 09:42

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 06:17	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 06:17	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 06:17	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 06:17	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 06:17	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 06:17	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 06:17	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 06:17	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/15/12 06:17	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 06:17	1
lodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 06:17	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 06:17	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 06:17	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 06:17	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 06:17	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 06:17	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 06:17	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 06:17	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54909-5

TestAmerica Job ID: 600-54909-1

Matrix: Water

Client Sample ID: MW-10

1,2-Dichloroethane-d4 (Surr)

Date Collected: 05/11/12 10:30

Date Received: 05/12/12 09:42

Trichloroethene 0.18 U 1.0 1,1,1-Trichloroethane 0.15 U 1.0 1,1-Dichloroethane 0.11 U 1.0 1,2-Dichloropropane 0.16 U 1.0 2,2-Dichloropropane 0.13 U 1.0 Dibromomethane 0.52 U 1.0 Chloroform 0.13 U 1.0 Bromodichloromethane 0.16 U 1.0	0.11 0.16	ug/L ug/L ug/L		iku kos posjesjeja	05/15/12 06:17 05/15/12 06:17	1
1,1-Dichloroethane 0.11 U 1.0 1,2-Dichloropropane 0.16 U 1.0 2,2-Dichloropropane 0.13 U 1.0 Dibromomethane 0.52 U 1.0 Chloroform 0.13 U 1.0 Bromodichloromethane 0.16 U 1.0	0.11 0.16	_			05/15/12 06:17	1
1,2-Dichloropropane 0.16 U 1.0 2,2-Dichloropropane 0.13 U 1.0 Dibromomethane 0.52 U 1.0 Chloroform 0.13 U 1.0 Bromodichloromethane 0.16 U 1.0	0.16	ug/L				
2,2-Dichloropropane 0.13 U 1.0 Dibromomethane 0.52 U 1.0 Chloroform 0.13 U 1.0 Bromodichloromethane 0.16 U 1.0					05/15/12 06:17	1
Dibromomethane 0.52 U 1.0 Chloroform 0.13 U 1.0 Bromodichloromethane 0.16 U 1.0		ug/L			05/15/12 06:17	1
Chloroform 0.13 U 1.0 Bromodichloromethane 0.16 U 1.0	0.13	ug/L			05/15/12 06:17	1
Bromodichloromethane 0.16 U 1.0	0.52	ug/L			05/15/12 06:17	1
	0.13	ug/L			05/15/12 06:17	1
	0.16	ug/L			05/15/12 06:17	1
1,1-Dichloropropene 0.21 U 1.0	0.21	ug/L			05/15/12 06:17	1
cis-1,3-Dichloropropene 0.18 U 1.0	0.18	ug/L			05/15/12 06:17	1
4-Methyl-2-pentanone (MIBK) 0.45 U 2.0	0.45	ug/L			05/15/12 06:17	1
Toluene 0.15 U 1.0	0.15	_			05/15/12 06:17	1
trans-1,3-Dichloropropene 0.21 U 1.0	0.21				05/15/12 06:17	1
1,1,2-Trichloroethane 0.28 U 1.0	0.28				05/15/12 06:17	1
Tetrachloroethene 0.13 U 1.0	0.13				05/15/12 06:17	1
1,3-Dichloropropane 0.22 U 1.0	0.22				05/15/12 06:17	: ::::::::::::::::::::::::::::::::::::
2-Hexanone 0.35 U 2.0	0.35	_			05/15/12 06:17	1
Dibromochloromethane 0.15 U 1.0	0.15	_			05/15/12 06:17	1
1,2-Dibromoethane 0.18 U 1.0	0.18				05/15/12 06:17	1
Chlorobenzene 0.12 U 1.0	0.10	-			05/15/12 06:17	1
		_				1
	0.18				05/15/12 06:17	
•	0.11				05/15/12 06:17	
Xylenes, Total 0.26 U 1.0	0.26				05/15/12 06:17	1
Styrene 0.070 U 1.0	0.070	STATE STATE OF			05/15/12 06:17	05/05/05/05
Bromoform 0.19 U 1.0	0.19				05/15/12 06:17	1
Isopropylbenzene 0.18 U 1.0	0.18	-			05/15/12 06:17	1
Bromobenzene 0.19 U 1.0	0.19				05/15/12 06:17	1
1,2,3-Trichloropropane 0.29 U 1.0	0.29				05/15/12 06:17	1
1,1,2,2-Tetrachloroethane 0.22 U 1.0	0.22	_			05/15/12 06:17	1
N-Propylbenzene 0.15 U 1.0	0.15	ug/L			05/15/12 06:17	1
2-Chlorotoluene 0.13 U 1.0	0.13	ug/L			05/15/12 06:17	1
4-Chlorotoluene 0.14 U 1.0	0.14	_			05/15/12 06:17	1
1,3,5-Trimethylbenzene 0.10 U 1.0	0.10	ug/L			05/15/12 06:17	1
tert-Butylbenzene 0.080 U 1.0	0.080	ug/L			05/15/12 06:17	1
4-Isopropyltoluene 0.10 U 1.0	0.10	ug/L			05/15/12 06:17	1
1,2,4-Trimethylbenzene 0.14 U 1.0	0.14	ug/L			05/15/12 06:17	1
sec-Butylbenzene 0.12 U 1.0	0.12	ug/L			05/15/12 06:17	1
1,3-Dichlorobenzene 0.13 U 1.0	0.13	ug/L			05/15/12 06:17	1
1,4-Dichlorobenzene 0.11 U 1.0	0.11	ug/L			05/15/12 06:17	1
1,2-Dichlorobenzene 0.10 U 1.0	0.10	ug/L			05/15/12 06:17	1
n-Butylbenzene 0.16 U 1.0	0.16	ug/L			05/15/12 06:17	1
1,2-Dibromo-3-Chloropropane 0.81 U 1.0	0.81	ug/L			05/15/12 06:17	1
1,2,4-Trichlorobenzene 0.31 U 1.0	0.31	ug/L			05/15/12 06:17	1
Hexachlorobutadiene 0.17 U 1.0	0.17	ug/L			05/15/12 06:17	1
Naphthalene 0.32 U 1.0	0.32	ug/L			05/15/12 06:17	1
Surrogate %Recovery Qualifier Limits			×	Prepared	Analyzed	Dil Fac
Surrogate %Recovery Qualifier Limits			-		05/15/12 06:17	1
Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 98 67 - 139					33, 13, 12 00.11	•
<u> </u>					05/15/12 06:17	1

05/15/12 06:17

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: MW-10 Lab Sample ID: 600-54909-5

Date Collected: 05/11/12 10:30 Matrix: Water

Date Received: 05/11/12 10:30 Matrix: V

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
Aniline	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	
Phenol	0.040	U	1.5	0.040	ug/L		05/16/12 15:10	05/18/12 13:18	
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 13:18	
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 13:18	
Benzyl alcohol	0.17	U	5.5	0.17	ug/L		05/16/12 15:10	05/18/12 13:18	
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/16/12 15:10	05/18/12 13:18	
3 & 4 Methylphenol	0.20	U	1.0	0.20	ug/L		05/16/12 15:10	05/18/12 13:18	
N-Nitrosodi-n-propylamine	0.10	U	2.5	0.10	ug/L		05/16/12 15:10	05/18/12 13:18	
Hexachloroethane	0.10	U	2.0	0.10	ug/L		05/16/12 15:10	05/18/12 13:18	
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 13:18	
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 13:18	
2-Nitrophenol	0.22	U	1.0	0.22	ug/L		05/16/12 15:10	05/18/12 13:18	
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 13:18	
Bis(2-chloroethoxy)methane	0.13	U	1.5		_		05/16/12 15:10	05/18/12 13:18	
2,4-Dichlorophenol	0.15	U	2.5		ug/L		05/16/12 15:10	05/18/12 13:18	
4-Chloroaniline	0.21	U	1.0	0.21	ug/L		05/16/12 15:10	05/18/12 13:18	
4-Chloro-3-methylphenol	0.17	U	1.0	0.17			05/16/12 15:10	05/18/12 13:18	
2-Methylnaphthalene	0.070	U	1.5	0.070			05/16/12 15:10	05/18/12 13:18	
Hexachlorocyclopentadiene	0.13		1.5	and the same that are the same	ug/L		05/16/12 15:10	05/18/12 13:18	
2,4,6-Trichlorophenol	0.18		2.0		ug/L		05/16/12 15:10	05/18/12 13:18	
2,4,5-Trichlorophenol	0.25		2.0		ug/L		05/16/12 15:10	05/18/12 13:18	
2-Chloronaphthalene	0.080		1.5	0.080			05/16/12 15:10	05/18/12 13:18	
2-Nitroaniline	0.19		2.5		-		05/16/12 15:10	05/18/12 13:18	
Dimethyl phthalate	0.070		2.5	0.070	•		05/16/12 15:10	05/18/12 13:18	
Acenaphthylene	0.060		1.0	0.060			05/16/12 15:10	05/18/12 13:18	
2,6-Dinitrotoluene	0.080		1.0	0.080	_		05/16/12 15:10	05/18/12 13:18	
3-Nitroaniline	0.16		2.5		ug/L		05/16/12 15:10	05/18/12 13:18	
Acenaphthene	0.080		1.0	0.080	_		05/16/12 15:10	05/18/12 13:18	
2,4-Dinitrophenol	0.39		5.0	0.39	ug/L		05/16/12 15:10	05/18/12 13:18	
4-Nitrophenol	0.56		2.5		ug/L		05/16/12 15:10	05/18/12 13:18	
Dibenzofuran	0.080		1.5	0.080			05/16/12 15:10	05/18/12 13:18	
2,4-Dinitrotoluene	0.13		1.5		ug/L		05/16/12 15:10	05/18/12 13:18	
Diethyl phthalate	1.5		2.5		ug/L		05/16/12 15:10	05/18/12 13:18	
4-Chlorophenyl phenyl ether	0.10		1.5		ug/L		05/16/12 15:10	05/18/12 13:18	
Fluorene	0.070		1.5	0.10			05/16/12 15:10	05/18/12 13:18	
4-Nitroaniline	0.070		2.5		ug/L		05/16/12 15:10	05/18/12 13:18	
4,6-Dinitro-2-methylphenol	0.83		2.5		ug/L		05/16/12 15:10	05/18/12 13:18	
4-Bromophenyl phenyl ether	0.10		1.5		ug/L				
Hexachlorobenzene							05/16/12 15:10	05/18/12 13:18	
	0.11		1.5		ug/L		05/16/12 15:10	05/18/12 13:18	
Pentachlorophenol	0.61		2.5		ug/L		05/16/12 15:10	05/18/12 13:18	
Phenanthrene	0.060		1.5	0.060	-		05/16/12 15:10	05/18/12 13:18	
Anthracene	0.050		1.0	0.050			05/16/12 15:10	05/18/12 13:18	
Di-n-butyl phthalate	0.17		2.5		ug/L		05/16/12 15:10	05/18/12 13:18	
Fluoranthene	0.070		2.5	0.070	_		05/16/12 15:10	05/18/12 13:18	
Pyrene	0.11		2.0		ug/L		05/16/12 15:10	05/18/12 13:18	
Butyl benzyl phthalate	0.18		2.5		ug/L		05/16/12 15:10	05/18/12 13:18	
3,3'-Dichlorobenzidine	0.18		10		ug/L		05/16/12 15:10	05/18/12 13:18	
Benzo[a]anthracene	0.080		2.0	0.080	-		05/16/12 15:10	05/18/12 13:18	
Bis(2-ethylhexyl) phthalate	0.37	U	2.5	0.37	ug/L		05/16/12 15:10	05/18/12 13:18	
Chrysene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	

TestAmerica Job ID: 600-54909-1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: MW-10 Lab Sample ID: 600-54909-5

Date Collected: 05/11/12 10:30 Matrix: Water

Date Received: 05/12/12 09:42

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/18/12 13:18	1
Benzo[k]fluoranthene	0.090	U	2.0	0.090	ug/L		05/16/12 15:10	05/18/12 13:18	1
Benzo[a]pyrene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1
Indeno[1,2,3-cd]pyrene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/18/12 13:18	1
Dibenz(a,h)anthracene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1
Benzo[g,h,i]perylene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	19		10 - 94				05/16/12 15:10	05/18/12 13:18	1
2,4,6-Tribromophenol	73		10 - 123				05/16/12 15:10	05/18/12 13:18	1
2-Fluorobiphenyl	64		43 - 116				05/16/12 15:10	05/18/12 13:18	1
2-Fluorophenol	30		10 - 100				05/16/12 15:10	05/18/12 13:18	1
Nitrobenzene-d5	60		35 - 114				05/16/12 15:10	05/18/12 13:18	1
Terphenyl-d14	76		33 - 141				05/16/12 15:10	05/18/12 13:18	1
Method: TX 1005 - Texas - T	otal Petroleum Hyd	rocarbon (0	GC)						
Analyte	•	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.81	U	1.9	0.81	mg/L		05/18/12 09:26	05/18/12 21:34	1
>C12-C28	0.94	U	1.9	0.94	mg/L		05/18/12 09:26	05/18/12 21:34	1
>C28-C35	0.94	U	1.9	0.94	mg/L		05/18/12 09:26	05/18/12 21:34	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/18/12 09:26	05/18/12 21:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analvzed	Dil Fac

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93	70 - 130	05/18/12 09:26	05/18/12 21:34	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:19	1
Aluminum	0.30	JB	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:19	1
Barium	0.11		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:19	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:19	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:19	1
Copper	0.0027	J	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:19	1
Manganese	0.080		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:19	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:19	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:19	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:19	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:19	1
Vanadium	0.0026	J	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:19	1
Zinc	0.0092	JB	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:19	1

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000035	U	0.00027	0.000035	mg/L		05/16/12 07:31	05/16/12 13:03	1

Client Sample ID: MW-8 Lab Sample ID: 600-54909-6

Date Collected: 05/11/12 11:30 Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Co	mpounds (GC/MS)							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L		*	05/15/12 06:45	1

Matrix: Water

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

tert-Butylbenzene

TestAmerica Job ID: 600-54909-1

Lab Sample ID: 600-54909-6

Matrix: Water

6

Client Sample ID: MW-8

Date Collected: 05/11/12 11:30 Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued) Result Qualifier Dil Fac SDL Unit D Prepared Analyzed 0.18 Chloromethane 2.0 0.18 ug/L 05/15/12 06:45 Vinyl chloride 0 11 U 20 05/15/12 06:45 0.11 ug/L Bromomethane 0.25 U 2.0 0.25 ug/L 05/15/12 06:45 Chloroethane 0.080 U 05/15/12 06:45 2.0 0.080 ug/L Trichlorofluoromethane 0.080 U 1.0 0.080 ug/L 05/15/12 06:45 1 1-Dichloroethene 0 19 U 10 0.19 ug/L 05/15/12 06:45 trans-1,2-Dichloroethene 0.090 U 1.0 0.090 ug/L 05/15/12 06:45 1.0 Methyl tert-butyl ether 0.17 J 0.12 ug/L 05/15/12 06:45 Acetone 0.99 U 5.0 0.99 ug/L 05/15/12 06:45 Iodomethane 2.0 U 2.0 2.0 ug/L 05/15/12 06:45 Carbon disulfide 0.24 U 2.0 0.24 ug/L 05/15/12 06:45 Methylene Chloride 0.15 U 5.0 0.15 ug/L 05/15/12 06:45 cis-1,2-Dichloroethene 0.060 U 1.0 0.060 ug/L 05/15/12 06:45 2-Butanone (MEK) 0.76 U 2.0 0.76 ug/L 05/15/12 06:45 Carbon tetrachloride 0.15 U 1.0 0.15 05/15/12 06:45 ug/L 1.0 0.080 05/15/12 06:45 Benzene 0.23 J ug/L 1.2-Dichloroethane 0.14 U 1.0 0.14 ug/L 05/15/12 06:45 Trichloroethene 0.18 U 1.0 0.18 05/15/12 06:45 ug/L 1.1.1-Trichloroethane 0.15 U 1.0 0.15 ug/L 05/15/12 06:45 1,1-Dichloroethane 0.11 U 1.0 0.11 ug/L 05/15/12 06:45 05/15/12 06:45 1,2-Dichloropropane 0.16 U 1.0 0.16 ug/L 2,2-Dichloropropane 0.13 U 1.0 0.13 ug/L 05/15/12 06:45 Dibromomethane 0.52 U 1.0 0.52 ug/L 05/15/12 06:45 Chloroform 0.13 U 1.0 0.13 ug/L 05/15/12 06:45 Bromodichloromethane 0.16 U 1.0 0.16 ug/L 05/15/12 06:45 0.21 1,1-Dichloropropene 0.21 U 1.0 05/15/12 06:45 ug/L cis-1,3-Dichloropropene 05/15/12 06:45 0.18 U 1.0 0.18 ug/L 4-Methyl-2-pentanone (MIBK) 0.45 U 2.0 ug/L 05/15/12 06:45 0.45 0.15 U 1.0 0.15 ug/L 05/15/12 06:45 trans-1,3-Dichloropropene 0.21 U 1.0 0.21 ug/L 05/15/12 06:45 1,1,2-Trichloroethane 0.28 U 1.0 0.28 ug/L 05/15/12 06:45 Tetrachloroethene 0.13 U 1.0 0.13 ug/L 05/15/12 06:45 1,3-Dichloropropane 0.22 U 1.0 0.22 ug/L 05/15/12 06:45 0.35 U 2.0 0.35 ug/L 05/15/12 06:45 2-Hexanone Dibromochloromethane 0.15 U 1.0 0.15 ug/L 05/15/12 06:45 1,2-Dibromoethane 0.18 U 1.0 0.18 ug/L 05/15/12 06:45 Chlorobenzene 0.12 U 1.0 0.12 ug/L 05/15/12 06:45 1,1,1,2-Tetrachloroethane 0.18 U 1.0 0.18 ug/L 05/15/12 06:45 Ethylbenzene 0.11 U 1.0 0.11 ug/L 05/15/12 06:45 0.26 U Xylenes, Total 1.0 0.26 ug/L 05/15/12 06:45 0.070 U Styrene 1.0 0.070 ug/L 05/15/12 06:45 Bromoform 0.19 U 1.0 0.19 ug/L 05/15/12 06:45 0 18 U 1.0 0.18 ug/L 05/15/12 06:45 Isopropylbenzene Bromobenzene 0.19 U 1.0 0.19 05/15/12 06:45 ug/L 1,2,3-Trichloropropane 0.29 U 1.0 0.29 ug/L 05/15/12 06:45 1,1,2,2-Tetrachloroethane 0.22 U 1.0 0.22 ug/L 05/15/12 06:45 N-Propylbenzene 0.15 U 1.0 0.15 ug/L 05/15/12 06:45 2-Chlorotoluene 0.13 U 1.0 0.13 ug/L 05/15/12 06:45 05/15/12 06:45 4-Chlorotoluene 0.14 U 1.0 0.14 ug/L 1,3,5-Trimethylbenzene 1.0 0.10 U 0.10 ug/L 05/15/12 06:45

05/15/12 06:45

1.0

0.080 ug/L

0.080 U

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54909-6

TestAmerica Job ID: 600-54909-1

Matrix: Water

Client Sample ID: MW-8

Date Collected: 05/11/12 11:30 Date Received: 05/12/12 09:42

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 06:45	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 06:45	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 06:45	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 06:45	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 06:45	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 06:45	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 06:45	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 06:45	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 06:45	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 06:45	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 06:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97	S	67 - 139			_		05/15/12 06:45	1
Dibromofluoromethane	84		62 - 130					05/15/12 06:45	1
Toluene-d8 (Surr)	87		70 - 130					05/15/12 06:45	1
1,2-Dichloroethane-d4 (Surr)	81		50 - 134					05/15/12 06:45	1

Method: 8270C LL - Semivolatil Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1
Phenol	0.040	U	1.5	0.040	ug/L		05/16/12 15:10	05/18/12 13:45	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 13:45	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 13:45	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/16/12 15:10	05/18/12 13:45	1
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/16/12 15:10	05/18/12 13:45	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/16/12 15:10	05/18/12 13:45	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/16/12 15:10	05/18/12 13:45	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/16/12 15:10	05/18/12 13:45	1
Nitrobenzene	0.11	Ü	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 13:45	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 13:45	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/16/12 15:10	05/18/12 13:45	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 13:45	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 13:45	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 13:45	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/16/12 15:10	05/18/12 13:45	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/16/12 15:10	05/18/12 13:45	1
2-Methylnaphthalene	0.069	U	1.5	0.069	ug/L		05/16/12 15:10	05/18/12 13:45	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 13:45	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/18/12 13:45	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/18/12 13:45	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/18/12 13:45	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 13:45	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/16/12 15:10	05/18/12 13:45	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/18/12 13:45	1
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1
2,4-Dinitrophenol	0.39	U	5.0	0.39	ug/L		05/16/12 15:10	05/18/12 13:45	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/16/12 15:10	05/18/12 13:45	1
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54909-6

TestAmerica Job ID: 600-54909-1

Matrix: Water

6

Client Sample ID: MW-8 Date Collected: 05/11/12 11:30

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued) Result Qualifier SDL Unit D Prepared Analyzed Dil Fac Analyte MQL (Adj) 2,4-Dinitrotoluene 0.13 U 0.13 ug/L 05/16/12 15:10 05/18/12 13:45 1.5 Diethyl phthalate 05/16/12 15:10 1.5 U 2.5 1.5 ug/L 05/18/12 13:45 4-Chlorophenyl phenyl ether 0.099 U 1.5 0.099 ug/L 05/16/12 15:10 05/18/12 13:45 05/16/12 15:10 Fluorene 0.069 U 0.069 ug/L 05/18/12 13:45 1.5 4-Nitroaniline 0.25 U 2.5 0.25 ug/L 05/16/12 15:10 05/18/12 13:45 4,6-Dinitro-2-methylphenol 0.82 U 2.5 0.82 ug/L 05/16/12 15:10 05/18/12 13:45 4-Bromophenyl phenyl ether 0.099 U 1.5 0.099 ug/L 05/16/12 15:10 05/18/12 13:45 Hexachlorobenzene 0.11 U 1.5 0.11 ug/L 05/16/12 15:10 05/18/12 13:45 2.5 Pentachlorophenol 0.60 U 0.60 ug/L 05/16/12 15:10 05/18/12 13:45 Phenanthrene 0.059 U 1.5 0.059 ug/L 05/16/12 15:10 05/18/12 13:45 Anthracene 0.050 U 0.99 05/18/12 13:45 0.050 ug/L 05/16/12 15:10 2.5 05/16/12 15:10 05/18/12 13:45 Di-n-butyl phthalate 1.5 J 0.11 ug/L 0.069 ug/L Fluoranthene 0.069 U 2.5 05/16/12 15:10 05/18/12 13:45 Pyrene 0.11 U 2.0 0.11 ug/L 05/16/12 15:10 05/18/12 13:45 2.5 Butyl benzyl phthalate 0 12 U 0.12 ug/L 05/16/12 15:10 05/18/12 13:45 3,3'-Dichlorobenzidine 0.18 U 9.9 0.18 ug/L 05/16/12 15:10 05/18/12 13:45 0.079 U 2.0 Benzo[a]anthracene 0.079 ug/L 05/16/12 15:10 05/18/12 13:45 Bis(2-ethylhexyl) phthalate 0.37 U 2.5 0.37 05/16/12 15:10 05/18/12 13:45 ug/L Chrysene 0.079 U 1.5 0.079 ug/L 05/16/12 15:10 05/18/12 13:45 Di-n-octyl phthalate 0.16 U 5.0 0.16 ug/L 05/16/12 15:10 05/18/12 13:45 Benzo[b]fluoranthene 0.069 U 2.0 0.069 ug/L 05/16/12 15:10 05/18/12 13:45 Benzo[k]fluoranthene 0.089 U 05/18/12 13:45 2.0 0.089 ug/L 05/16/12 15:10 Benzo[a]pyrene 0.079 U 1.5 0.079 ug/L 05/16/12 15:10 05/18/12 13:45 Indeno[1,2,3-cd]pyrene 0.069 U 2.0 0.069 ug/L 05/16/12 15:10 05/18/12 13:45 Dibenz(a,h)anthracene 0.079 U 2.5 0.079 ug/L 05/16/12 15:10 05/18/12 13:45 0.079 U 2.5 0.079 ug/L 05/16/12 15:10 05/18/12 13:45 Benzo[g,h,i]perylene

Surrogate	%Recovery	Qualifier Lin	nits	Prepared	Analyzed	Dil Fac
Phenol-d6	19	10	- 94	05/16/12 15:10	05/18/12 13:45	1
2,4,6-Tribromophenol	78	10	- 123	05/16/12 15:10	05/18/12 13:45	1
2-Fluorobiphenyl	69	43	- 116	05/16/12 15:10	05/18/12 13:45	1
2-Fluorophenol	33	10	- 100	05/16/12 15:10	05/18/12 13:45	1
Nitrobenzene-d5	68	35	- 114	05/16/12 15:10	05/18/12 13:45	1
Terphenyl-d14	82	33 .	- 141	05/16/12 15:10	05/18/12 13:45	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.80	U	1.9	0.80	mg/L		05/18/12 09:26	05/18/12 22:09	1
>C12-C28	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 22:09	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 22:09	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/18/12 09:26	05/18/12 22:09	1

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	96	70 - 13	05/18/12 09:26	05/18/12 22:09	1
Method: 6010B - Metals (ICP)					

Method: 6010B - Metals (ICP)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0044	J	0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:22	1
Aluminum	0.34	JB	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:22	1
Barium	0.30		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:22	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:22	1
Chromium	0.0018	J	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:22	1
	Analyte Arsenic Aluminum Barium Cobalt	Analyte Result Arsenic 0.0044 Aluminum 0.34 Barium 0.30 Cobalt 0.00063	Analyte Result Qualifier Arsenic 0.0044 J Aluminum 0.34 J B Barium 0.30 Cobalt	Analyte Result Qualifier MQL (Adj) Arsenic 0.0044 J 0.010 Aluminum 0.34 JB 0.50 Barium 0.30 O.020 0.020 Cobalt 0.00063 U 0.010	Analyte Result 0.0044 Qualifier J 0.010 MQL (Adj) 0.0033 SDL 0.0033 Arsenic 0.0044 J 0.010 0.0033 Aluminum 0.34 J B 0.50 0.50 Barium 0.30 0.020 0.0022 Cobalt 0.00063 U 0.010 0.00063	Analyte Result Arsenic Qualifier MQL (Adj) SDL Unit Aluminum 0.0044 J 0.010 0.0033 mg/L Barium 0.34 J B 0.50 0.022 mg/L Cobalt 0.00063 U 0.010 0.00063 mg/L	Analyte Result Arsenic Qualifier MQL (Adj) SDL Unit D Arsenic 0.0044 J 0.010 0.0033 mg/L Aluminum 0.34 J B 0.50 0.022 mg/L Barium 0.30 0.020 0.0022 mg/L Cobalt 0.00063 U 0.010 0.00063 mg/L	Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Arsenic 0.0044 J 0.010 0.0033 mg/L 05/15/12 11:24 Aluminum 0.34 J B 0.50 0.022 mg/L 05/15/12 11:24 Barium 0.30 0.020 0.0022 mg/L 05/15/12 11:24 Cobalt 0.00063 U 0.010 0.00063 mg/L 05/15/12 11:24	Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared Analyzed Arsenic 0.0044 J 0.010 0.0033 mg/L 05/15/12 11:24 05/16/12 11:22 Aluminum 0.34 J B 0.50 0.022 mg/L 05/15/12 11:24 05/16/12 11:22 Barium 0.30 0.0020 0.0022 mg/L 05/15/12 11:24 05/16/12 11:22 Cobalt 0.00063 U 0.010 0.00063 mg/L 05/15/12 11:24 05/16/12 11:22

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Lab Sample ID: 600-54909-6

05/16/12 13:09

05/16/12 07:31

Matrix: Water

Client Sample ID: MW-8 Date Collected: 05/11/12 11:30

Date Received: 05/12/12 09:42

Method: 6010B - Metals (ICP) (Contin	ued)								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.0015	U	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:22	1
Manganese	0.45		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:22	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:22	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:22	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:22	1208208
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:22	1
Vanadium	0.0017	U	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:22	1
Zinc	0.0037	JB	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:22	refined na 1
Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adi)	SDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: DUP-2 Lab Sample ID: 600-54909-7 Date Collected: 05/11/12 11:30 **Matrix: Water**

0.00020

0.000026 mg/L

0.000026 U

Date Received: 05/12/12 09:42

Mercury

Method: 8260B - Volatile Organ Analyte	-	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 05:48	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 05:48	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 05:48	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 05:48	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 05:48	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 05:48	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 05:48	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 05:48	1
Methyl tert-butyl ether	0.19	J	1.0	0.12	ug/L			05/15/12 05:48	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 05:48	1
lodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 05:48	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 05:48	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 05:48	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 05:48	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 05:48	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 05:48	1
Benzene	0.22	J	1.0	0.080	ug/L			05/15/12 05:48	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 05:48	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 05:48	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 05:48	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 05:48	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 05:48	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 05:48	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 05:48	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/15/12 05:48	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 05:48	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 05:48	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 05:48	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 05:48	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 05:48	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 05:48	12000000
1,1,2-Trichloroethane	0.28	U	1.0		ug/L			05/15/12 05:48	1

TestAmerica Houston 7/18/2012

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54909-7

TestAmerica Job ID: 600-54909-1

Sample 1D. 000-54505-7

Matrix: Water

Client Sample ID: DUP-2

Date Collected: 05/11/12 11:30 Date Received: 05/12/12 09:42

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.13	U	1.0	0.13	ug/L		Sections on the Section	05/15/12 05:48	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 05:48	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 05:48	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 05:48	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 05:48	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 05:48	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 05:48	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 05:48	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 05:48	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 05:48	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 05:48	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 05:48	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 05:48	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 05:48	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 05:48	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 05:48	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 05:48	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 05:48	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 05:48	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 05:48	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 05:48	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 05:48	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 05:48	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 05:48	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 05:48	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 05:48	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 05:48	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 05:48	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 05:48	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 05:48	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 05:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100	85	67 - 139			_		05/15/12 05:48	1
Dibromofluoromethane	78		62 - 130					05/15/12 05:48	1
Toluene-d8 (Surr)	85		70 - 130					05/15/12 05:48	1
1,2-Dichloroethane-d4 (Surr)	81		50 - 134					05/15/12 05:48	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	1
Phenol	0.040	U	1.5	0.040	ug/L		05/16/12 15:10	05/18/12 14:11	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 14:11	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 14:11	1
Benzyl alcohol	0.17	U	5.5	0.17	ug/L		05/16/12 15:10	05/18/12 14:11	1
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/16/12 15:10	05/18/12 14:11	1
3 & 4 Methylphenol	0.20	U	1.0	0.20	ug/L		05/16/12 15:10	05/18/12 14:11	1
N-Nitrosodi-n-propylamine	0.10	U	2.5	0.10	ug/L		05/16/12 15:10	05/18/12 14:11	1
Hexachloroethane	0.10	U	2.0	0.10	ug/L		05/16/12 15:10	05/18/12 14:11	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 14:11	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 14:11	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

2,4,6-Tribromophenol

2-Fluorobiphenyl

TestAmerica Job ID: 600-54909-1

Lab Sample ID: 600-54909-7

Matrix: Water

Client Sample ID: DUP-2

Date Collected: 05/11/12 11:30 Date Received: 05/12/12 09:42

Analyte		Qualifier	MQL (Adj)	10	Unit	D	Prepared	Analyzed	Dil Fa
2-Nitrophenol	0.22	U	1.0	0.22	ug/L		05/16/12 15:10	05/18/12 14:11	
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 14:11	
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 14:11	
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 14:11	
4-Chloroaniline	0.21	U	1.0	0.21	ug/L		05/16/12 15:10	05/18/12 14:11	
4-Chloro-3-methylphenol	0.17	U	1.0	0.17	ug/L		05/16/12 15:10	05/18/12 14:11	
2-Methylnaphthalene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/18/12 14:11	
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 14:11	
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/18/12 14:11	
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/18/12 14:11	
2-Chloronaphthalene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/18/12 14:11	
Dimethyl phthalate	0.070	U	2.5	0.070	ug/L		05/16/12 15:10	05/18/12 14:11	
Acenaphthylene	0.060	U	1.0	0.060			05/16/12 15:10	05/18/12 14:11	
2,6-Dinitrotoluene	0.080		1.0	0.080	_		05/16/12 15:10	05/18/12 14:11	
3-Nitroaniline	0.16	U	2.5		ug/L		05/16/12 15:10	05/18/12 14:11	
Acenaphthene	0.080	u palentine and	1.0	0.080			05/16/12 15:10	05/18/12 14:11	
2,4-Dinitrophenol	0.39		5.0	0.39	-		05/16/12 15:10	05/18/12 14:11	
4-Nitrophenol	0.56		2.5		ug/L		05/16/12 15:10	05/18/12 14:11	
Dibenzofuran	0.080		1.5	0.080			05/16/12 15:10	05/18/12 14:11	
2,4-Dinitrotoluene	0.13		1.5		ug/L		05/16/12 15:10	05/18/12 14:11	
Diethyl phthalate	1.5		2.5		ug/L		05/16/12 15:10	05/18/12 14:11	
4-Chlorophenyl phenyl ether	0.10		1.5		ug/L		05/16/12 15:10	05/18/12 14:11	
Fluorene	0.070		1.5	0.10	_		05/16/12 15:10	05/18/12 14:11	
4-Nitroaniline	0.070		2.5		ug/L ug/L		05/16/12 15:10	05/18/12 14:11	
	0.23		2.5		ug/L		05/16/12 15:10	05/18/12 14:11	
4,6-Dinitro-2-methylphenol	0.63		1.5		ug/L ug/L		05/16/12 15:10	05/18/12 14:11	
4-Bromophenyl phenyl ether					-				
Hexachlorobenzene	0.11		1.5		ug/L		05/16/12 15:10	05/18/12 14:11	
Pentachlorophenol	0.61		2.5		ug/L		05/16/12 15:10	05/18/12 14:11	
Phenanthrene	0.060		1.5	0.060	-		05/16/12 15:10	05/18/12 14:11	
Anthracene	0.050		1.0	0.050			05/16/12 15:10	05/18/12 14:11	
Di-n-butyl phthalate	1.6		2.5		ug/L		05/16/12 15:10	05/18/12 14:11	
Fluoranthene	0.070		2.5	0.070	-		05/16/12 15:10	05/18/12 14:11	
Pyrene	0.11		2.0		ug/L		05/16/12 15:10	05/18/12 14:11	
Butyl benzyl phthalate	0.15		2.5		ug/L		05/16/12 15:10	05/18/12 14:11	
3,3'-Dichlorobenzidine	0.18		10	0.18			05/16/12 15:10	05/18/12 14:11	
Benzo[a]anthracene	0.080		2.0	0.080			05/16/12 15:10	05/18/12 14:11	
Bis(2-ethylhexyl) phthalate	0.37		2.5		ug/L		05/16/12 15:10	05/18/12 14:11	
Chrysene	0.080		1.5	0.080	•		05/16/12 15:10	05/18/12 14:11	
Di-n-octyl phthalate	0.16	U	5.0	0.16	ug/L		05/16/12 15:10	05/18/12 14:11	
Benzo[b]fluoranthene	0.070		2.0	0.070	-		05/16/12 15:10	05/18/12 14:11	
Benzo[k]fluoranthene	0.090	U	2.0	0.090	ug/L		05/16/12 15:10	05/18/12 14:11	
Benzo[a]pyrene	0.080		1.5	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	
Indeno[1,2,3-cd]pyrene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/18/12 14:11	
Dibenz(a,h)anthracene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	
Benzo[g,h,i]perylene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Phenol-d6	18	<u> </u>	10 - 94				05/16/12 15:10	05/18/12 14:11	1%
* *	, •								

05/18/12 14:11

05/18/12 14:11

05/16/12 15:10

05/16/12 15:10

10 - 123

43 - 116

72

63

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: DUP-2

Date Collected: 05/11/12 11:30

Date Received: 05/12/12 09:42

Lab Sample ID: 600-54909-7

TestAmerica Job ID: 600-54909-1

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	31		10 - 100	05/16/12 15:10	05/18/12 14:11	1
Nitrobenzene-d5	64		35 - 114	05/16/12 15:10	05/18/12 14:11	1
Terphenyl-d14	77		33 - 141	05/16/12 15:10	05/18/12 14:11	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.82	U	2.0	0.82	mg/L		05/18/12 09:26	05/18/12 23:19	1
>C12-C28	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/18/12 23:19	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/18/12 23:19	1
C6-C35	1.5	U	2.0	1.5	mg/L		05/18/12 09:26	05/18/12 23:19	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	95	70 - 130	05/18/12 09:26	05/18/12 23:19	1

Method:	6010B - I	Vletals (ICP)

method. of tob - metals (101)								
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0045	J	0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:24	1
Aluminum	0.31	JB	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:24	1
Barium	0.30		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:24	1
Cobalt	0.00070	J	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:24	1
Chromium	0.0020	J	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:24	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:24	1
Manganese	0.44		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:24	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:24	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:24	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:24	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:24	1
Vanadium	0.0018	J	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:24	1
Zinc	0.0064	JB	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:24	1

Method:	7470A -	Mercury	(CVAA)

moundary moreary (expert)										
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 13:11	1	

Client Sample ID: MW-7

Lab Sample ID: 600-54909-8 Date Collected: 05/11/12 12:30 Matrix: Water Date Received: 05/12/12 09:42

				_	
Mothod: 8	226NR _	Volatilo	Organic	Compounde	(GC/MS)

Method: 8260B - Volatile Organ	nic Compounds ((GC/MS)							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L	21 -21 5		05/16/12 14:21	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/16/12 14:21	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/16/12 14:21	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/16/12 14:21	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/16/12 14:21	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/16/12 14:21	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/16/12 14:21	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/16/12 14:21	1
Methyl tert-butyl ether	1.4		1.0	0.12	ug/L			05/16/12 14:21	1
Acetone	0.99	U	5.0	0.99	ug/L			05/16/12 14:21	1
lodomethane	2.0	U	2.0	2.0	ug/L			05/16/12 14:21	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/16/12 14:21	1

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54909-8

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-7

Date Collected: 05/11/12 12:30

Matrix: Water Date Received: 05/12/12 09:42

Analyte	Result	Qualifier	MQL (Adj)	SDL	0 <u></u>	D	Prepared	Analyzed	Dil Fa
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/16/12 14:21	
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/16/12 14:21	
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/16/12 14:21	
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/16/12 14:21	
Benzene	0.14	J	1.0	0.080	ug/L			05/16/12 14:21	
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/16/12 14:21	
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/16/12 14:21	
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/16/12 14:21	
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/16/12 14:21	
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/16/12 14:21	
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/16/12 14:21	
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/16/12 14:21	
Chloroform	0.13	U	1.0	0.13	ug/L			05/16/12 14:21	
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/16/12 14:21	
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 14:21	
cis-1,3-Dichloropropene	0.18	U	1.0		ug/L			05/16/12 14:21	
4-Methyl-2-pentanone (MIBK)	0.45		2.0		ug/L			05/16/12 14:21	
Toluene	0.15		1.0		ug/L			05/16/12 14:21	
trans-1,3-Dichloropropene	0.21		1.0		ug/L			05/16/12 14:21	
1,1,2-Trichloroethane	0.28		1.0		ug/L			05/16/12 14:21	
Tetrachloroethene	0.13		1.0		ug/L			05/16/12 14:21	
1,3-Dichloropropane	0.10		1.0		ug/L			05/16/12 14:21	
2-Hexanone	0.35		2.0		ug/L			05/16/12 14:21	
Dibromochloromethane	0.35		1.0		ug/L			05/16/12 14:21	
	0.13							05/16/12 14:21	
1,2-Dibromoethane			1.0		ug/L				
Chlorobenzene	0.12		1.0		ug/L			05/16/12 14:21	
1,1,1,2-Tetrachloroethane	0.18		1.0		ug/L			05/16/12 14:21	
Ethylbenzene	0.11		1.0		ug/L			05/16/12 14:21	
Xylenes, Total	0.26		1.0		ug/L			05/16/12 14:21	
Styrene	0.070		1.0	0.070				05/16/12 14:21	
Bromoform 	0.19		1.0		ug/L			05/16/12 14:21	
Isopropylbenzene	0.18		1.0		ug/L			05/16/12 14:21	
Bromobenzene	0.19		1.0		ug/L			05/16/12 14:21	
1,2,3-Trichloropropane	0.29		1.0		ug/L			05/16/12 14:21	
1,1,2,2-Tetrachloroethane	0.22		1.0		ug/L			05/16/12 14:21	
N-Propylbenzene	0.15	U	1.0		ug/L			05/16/12 14:21	
2-Chlorotoluene	0.13		1.0		ug/L			05/16/12 14:21	
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/16/12 14:21	
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/16/12 14:21	
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/16/12 14:21	
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/16/12 14:21	
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/16/12 14:21	
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/16/12 14:21	
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 14:21	
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 14:21	
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 14:21	
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/16/12 14:21	
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 14:21	
1,2,4-Trichlorobenzene	0.31		1.0		ug/L			05/16/12 14:21	
Hexachlorobutadiene	0.17		1.0		ug/L			05/16/12 14:21	
Naphthalene	0.32		1.0		ug/L			05/16/12 14:21	

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54909-8

TestAmerica Job ID: 600-54909-1

Matrix: Water

Client Sample ID: MW-7

Date Collected: 05/11/12 12:30 Date Received: 05/12/12 09:42

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139		05/16/12 14:21	1
Dibromofluoromethane	81		62 - 130		05/16/12 14:21	1
Toluene-d8 (Surr)	85		70 - 130		05/16/12 14:21	1
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		05/16/12 14:21	1

Nethod: 9270C LL Seminalet	ilo Organia Cama	accorde by	00 - 134	wala				03/10/12 14.21	
Method: 8270C LL - Semivolat Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
Phenol	0.039	U	1.5	0.039	ug/L		05/16/12 15:10	05/18/12 09:22	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 09:22	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 09:22	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/16/12 15:10	05/18/12 09:22	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/16/12 15:10	05/18/12 09:22	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/16/12 15:10	05/18/12 09:22	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/16/12 15:10	05/18/12 09:22	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/16/12 15:10	05/18/12 09:22	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 09:22	1202202
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 09:22	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 09:22	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 09:22	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/16/12 15:10	05/18/12 09:22	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/16/12 15:10	05/18/12 09:22	1
2-Methylnaphthalene	0.069	U	1.5	0.069	ug/L		05/16/12 15:10	05/18/12 09:22	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/18/12 09:22	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/18/12 09:22	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 09:22	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/18/12 09:22	1
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/16/12 15:10	05/18/12 09:22	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/16/12 15:10	05/18/12 09:22	1
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 09:22	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/16/12 15:10	05/18/12 09:22	1
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/16/12 15:10	05/18/12 09:22	
Fluorene	0.069	U	1.5	0.069	ug/L		05/16/12 15:10	05/18/12 09:22	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/16/12 15:10	05/18/12 09:22	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/16/12 15:10	05/18/12 09:22	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/16/12 15:10	05/18/12 09:22	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 09:22	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/16/12 15:10	05/18/12 09:22	1
Phenanthrene	0.059	U	1.5	0.059	ug/L		05/16/12 15:10	05/18/12 09:22	•
Anthracene	0.049	U	0.99	0.049	ug/L		05/16/12 15:10	05/18/12 09:22	
Di-n-butyl phthalate	0.19	J	2.5	0.11	ug/L		05/16/12 15:10	05/18/12 09:22	
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 09:22	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/16/12 15:10	05/18/12 09:22	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

o-Terphenyl

Client Sample ID: MW-7

Date Collected: 05/11/12 12:30

Date Received: 05/12/12 09:42

Lab Sample ID: 600-54909-8

TestAmerica Job ID: 600-54909-1

Matrix: Water

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	0.20	J B	2.5	0.12	ug/L		05/16/12 15:10	05/18/12 09:22	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/16/12 15:10	05/18/12 09:22	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
Bis(2-ethylhexyl) phthalate	0.36	U	2.5	0.36	ug/L		05/16/12 15:10	05/18/12 09:22	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/16/12 15:10	05/18/12 09:22	1
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/16/12 15:10	05/18/12 09:22	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/16/12 15:10	05/18/12 09:22	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/16/12 15:10	05/18/12 09:22	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	19		10 - 94				05/16/12 15:10	05/18/12 09:22	1
2,4,6-Tribromophenol	85		10 - 123				05/16/12 15:10	05/18/12 09:22	1
2-Fluorobiphenyl	76		43 - 116				05/16/12 15:10	05/18/12 09:22	1
2-Fluorophenol	30		10 - 100				05/16/12 15:10	05/18/12 09:22	1
Nitrobenzene-d5	72		35 - 114				05/16/12 15:10	05/18/12 09:22	1
Terphenyl-d14	80		33 - 141				05/16/12 15:10	05/18/12 09:22	1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.80	U	1.9	0.80	mg/L		05/18/12 09:26	05/18/12 23:55	1
>C12-C28	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 23:55	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 23:55	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/18/12 09:26	05/18/12 23:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

70 - 130

95

Method: 6010B - Metals (ICP)	Paguit	Qualifier	MQL (Adj)	eni	Unit	D	Prepared	Analyzed	Dil Fac
Analyte		a				— B	· · · · · · · · · · · · · · · · · · ·	1	DII Fac
Arsenic	0.0043	J	0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:27	1
Aluminum	0.084	JB	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:27	1
Barium	0.14		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:27	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:27	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:27	1
Copper	0.0049	J	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:27	1
Manganese	0.019		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:27	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:27	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:27	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:27	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:27	1
Vanadium	0.0017	U	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:27	1
Zinc	0.012	JB	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:27	1

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 13:13	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54909-9

TestAmerica Job ID: 600-54909-1

Matrix: Water

Client Sample ID: MW-6

Date Collected: 05/11/12 13:30 Date Received: 05/12/12 09:42

Analyte	25 (21	Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fa
Dichlorodifluoromethane	6.0	U *	50	6.0	ug/L			05/16/12 18:38	5
Chloromethane	9.0	U	100	9.0	ug/L			05/16/12 18:38	5
Vinyl chloride	5.5	U	100	5.5	ug/L			05/16/12 18:38	5
Bromomethane	13	U	100	13	ug/L			05/16/12 18:38	5
Chloroethane	4.0	U	100	4.0	ug/L			05/16/12 18:38	5
Trichlorofluoromethane	4.0	U	50	4.0	ug/L			05/16/12 18:38	5
1,1-Dichloroethene	9.5	U	50	9.5	ug/L			05/16/12 18:38	5
trans-1,2-Dichloroethene	4.5	U	50	4.5	ug/L			05/16/12 18:38	5
Methyl tert-butyl ether	6.0	U	50	6.0	ug/L			05/16/12 18:38	5
Acetone	50	U	250	50	ug/L			05/16/12 18:38	5
lodomethane	100	U	100	100	ug/L			05/16/12 18:38	5
Carbon disulfide	12	U	100	12	ug/L			05/16/12 18:38	5
Methylene Chloride	9.1	J	250	7.5	ug/L			05/16/12 18:38	5
cis-1,2-Dichloroethene	3.0	U	50	3.0	ug/L			05/16/12 18:38	5
2-Butanone (MEK)	38	U	100	38	ug/L			05/16/12 18:38	5
Carbon tetrachloride	7.5	U	50	7.5	ug/L			05/16/12 18:38	5
1,2-Dichloroethane	7.0	U	50	7.0	ug/L			05/16/12 18:38	5
Trichloroethene	9.0	U	50	9.0	ug/L			05/16/12 18:38	5
1,1,1-Trichloroethane	7.5	U	50		ug/L			05/16/12 18:38	5
1,1-Dichloroethane	5.5	U	50		ug/L			05/16/12 18:38	5
1,2-Dichloropropane	8.0	U	50		ug/L			05/16/12 18:38	5
2,2-Dichloropropane	6.5	U	50		ug/L			05/16/12 18:38	5
Dibromomethane	26	U	50		ug/L			05/16/12 18:38	5
Chloroform	6.5		50		ug/L			05/16/12 18:38	5
Bromodichloromethane	8.0		50		ug/L			05/16/12 18:38	5 - 12 - 12 - 12 - 12 - 12 - 12 - 12 - 1
1,1-Dichloropropene	11		50		ug/L			05/16/12 18:38	5
cis-1,3-Dichloropropene	9.0		50		ug/L			05/16/12 18:38	5
4-Methyl-2-pentanone (MIBK)	23		100		ug/L			05/16/12 18:38	
Toluene	65		50		ug/L			05/16/12 18:38	5
trans-1,3-Dichloropropene	11	U	50		ug/L			05/16/12 18:38	5
1,1,2-Trichloroethane	14		50		ug/L			05/16/12 18:38	5
Tetrachloroethene	6.5		50		ug/L			05/16/12 18:38	5
1,3-Dichloropropane	11		50		ug/L			05/16/12 18:38	5
2-Hexanone	18		100		ug/L			05/16/12 18:38	5
Dibromochloromethane	7.5		50		ug/L			05/16/12 18:38	5
1,2-Dibromoethane	9.0		50		ug/L			05/16/12 18:38	5
Chlorobenzene	6.0		50		ug/L			05/16/12 18:38	5
1,1,1,2-Tetrachloroethane	9.0		50		ug/L			05/16/12 18:38	5
		U	50		ug/L			05/16/12 18:38	5
Ethylbenzene Yulongo Total	580							05/16/12 18:38	5
Xylenes, Total	1400		50 50		ug/L ug/L			05/16/12 18:38	5
Styrene Bromoform	5.1 9.5		50		ug/L ug/L			05/16/12 18:38	5
Isopropylbenzene	42		50		ug/L			05/16/12 18:38	5
Bromobenzene	9.5		50		ug/L			05/16/12 18:38	5
1,2,3-Trichloropropane	15		50		ug/L			05/16/12 18:38	5
1,1,2,2-Tetrachloroethane	11	U	50		ug/L			05/16/12 18:38	5
N-Propylbenzene	58		50		ug/L			05/16/12 18:38	5
2-Chlorotoluene	6.5		50		ug/L			05/16/12 18:38	5
4-Chlorotoluene	7.0	U	50		ug/L			05/16/12 18:38	5
1,3,5-Trimethylbenzene	110		50	5.0	ug/L			05/16/12 18:38	5

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54909-9

TestAmerica Job ID: 600-54909-1

Matrix: Water

Client Sample ID: MW-6								
Date Collected: 05/11/12 13:30								
Date Received: 05/12/12 09:42								

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	5.0	U	50	5.0	ug/L		31	05/16/12 18:38	50
1,2,4-Trimethylbenzene	370		50	7.0	ug/L			05/16/12 18:38	50
sec-Butylbenzene	6.0	U	50	6.0	ug/L			05/16/12 18:38	50
1,3-Dichlorobenzene	6.5	U	50	6.5	ug/L			05/16/12 18:38	50
1,4-Dichlorobenzene	5.5	U	50	5.5	ug/L			05/16/12 18:38	50
1,2-Dichlorobenzene	5.0	U	50	5.0	ug/L			05/16/12 18:38	50
n-Butylbenzene	12	J	50	8.0	ug/L			05/16/12 18:38	50
1,2-Dibromo-3-Chloropropane	41	U	50	41	ug/L			05/16/12 18:38	50
1,2,4-Trichlorobenzene	16	U	50	16	ug/L			05/16/12 18:38	50
Hexachlorobutadiene	8.5	U	50	8.5	ug/L			05/16/12 18:38	50
Naphthalene	330		50	16	ug/L			05/16/12 18:38	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100	×	67 - 139			_		05/16/12 18:38	50
Dibromofluoromethane	82		62 - 130					05/16/12 18:38	50
Toluene-d8 (Surr)	87		70 - 130					05/16/12 18:38	50
1,2-Dichloroethane-d4 (Surr)	80		50 ₋ 134					05/16/12 18:38	50

Method: 8260B - Volatile Orga	anic Compounds ((GC/MS) - D	L						
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	13000	·	1000	80	ug/L			05/16/12 19:07	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139			-		05/16/12 19:07	1000
Dibromofluoromethane	78		62 - 130					05/16/12 19:07	1000
Toluene-d8 (Surr)	86		70 - 130					05/16/12 19:07	1000
1,2-Dichloroethane-d4 (Surr)	78		50 - 134					05/16/12 19:07	1000

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 14:37	5
Phenol	13		7.4	0.20	ug/L		05/16/12 15:10	05/18/12 14:37	5
Bis(2-chloroethyl)ether	0.74	U	7.4	0.74	ug/L		05/16/12 15:10	05/18/12 14:37	5
2-Chlorophenol	0.64	U	9.9	0.64	ug/L		05/16/12 15:10	05/18/12 14:37	5
Benzyl alcohol	0.84	U	27	0.84	ug/L		05/16/12 15:10	05/18/12 14:37	5
Bis(2-chloroisopropyl) ether	2.0	U	7.4	2.0	ug/L		05/16/12 15:10	05/18/12 14:37	5
3 & 4 Methylphenol	0.99	U	4.9	0.99	ug/L		05/16/12 15:10	05/18/12 14:37	5
N-Nitrosodi-n-propylamine	0.49	U	12	0.49	ug/L		05/16/12 15:10	05/18/12 14:37	5
Hexachloroethane	0.49	U	9.9	0.49	ug/L		05/16/12 15:10	05/18/12 14:37	5
Nitrobenzene	0.54	U	7.4	0.54	ug/L		05/16/12 15:10	05/18/12 14:37	5
Isophorone	0.54	U	7.4	0.54	ug/L		05/16/12 15:10	05/18/12 14:37	5
2-Nitrophenol	1.1	U	4.9	1.1	ug/L		05/16/12 15:10	05/18/12 14:37	5
2,4-Dimethylphenol	53		12	1.5	ug/L		05/16/12 15:10	05/18/12 14:37	5
Bis(2-chloroethoxy)methane	0.64	U	7.4	0.64	ug/L		05/16/12 15:10	05/18/12 14:37	5
2,4-Dichlorophenol	0.74	U	12	0.74	ug/L		05/16/12 15:10	05/18/12 14:37	5
4-Chloroaniline	1.0	U	4.9	1.0	ug/L		05/16/12 15:10	05/18/12 14:37	5
4-Chloro-3-methylphenol	0.84	U	4.9	0.84	ug/L		05/16/12 15:10	05/18/12 14:37	5
2-Methylnaphthalene	77		7.4	0.34	ug/L		05/16/12 15:10	05/18/12 14:37	5
Hexachlorocyclopentadiene	0.64	U	7.4	0.64	ug/L		05/16/12 15:10	05/18/12 14:37	5
2,4,6-Trichlorophenol	0.89	U	9.9	0.89	ug/L		05/16/12 15:10	05/18/12 14:37	5
2,4,5-Trichlorophenol	1.2	U	9.9	1.2	ug/L		05/16/12 15:10	05/18/12 14:37	5
2-Chloronaphthalene	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 14:37	5

6

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: MW-6 Lab Sample ID: 600-54909-9

Date Collected: 05/11/12 13:30 Matrix: Water
Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued) Result Qualifier SDL Unit D Prepared Dil Fac Analyte MQL (Adj) Analyzed 2-Nitroaniline 0.94 Ū 0.94 05/16/12 15:10 05/18/12 14:37 12 ug/L 05/18/12 14:37 5 Dimethyl phthalate 0.34 U 12 0.34 ug/L 05/16/12 15:10 Acenaphthylene 0.30 U 4.9 0.30 ug/L 05/16/12 15:10 05/18/12 14:37 5 2,6-Dinitrotoluene 0.39 U 4.9 0.39 05/16/12 15:10 05/18/12 14:37 5 ug/L 3-Nitroaniline 0.79 U 12 0.79 ug/L 05/16/12 15:10 05/18/12 14:37 5 4.9 ug/L 05/16/12 15:10 05/18/12 14:37 5 Acenaphthene 0.75 J 0.39 2,4-Dinitrophenol 1.9 U 25 1.9 ug/L 05/16/12 15:10 05/18/12 14:37 5 4-Nitrophenol 2.8 U 12 2.8 05/16/12 15:10 05/18/12 14:37 5 ug/L 7.4 5 Dibenzofuran 0.39 U 0.39 ug/L 05/16/12 15:10 05/18/12 14:37 5 2,4-Dinitrotoluene 0.64 U 7.4 0.64 ug/L 05/16/12 15:10 05/18/12 14:37 Diethyl phthalate 5 7.4 U 12 7.4 ug/L 05/16/12 15:10 05/18/12 14:37 0.49 U 7.4 05/16/12 15:10 5 4-Chlorophenyl phenyl ether 0.49 ug/L 05/18/12 14:37 05/18/12 14:37 5 Fluorene 0.34 U 74 0.34 ug/L 05/16/12 15:10 05/16/12 15:10 4-Nitroaniline 1.2 U 12 1.2 ug/L 05/18/12 14:37 5 12 5 4,6-Dinitro-2-methylphenol U ug/L 05/16/12 15:10 05/18/12 14:37 4 1 4.1 4-Bromophenyl phenyl ether 0.49 U 7.4 0.49 05/16/12 15:10 05/18/12 14:37 5 ug/L Hexachlorobenzene 0.54 U 7.4 ug/L 5 0.54 05/16/12 15:10 05/18/12 14:37 Pentachlorophenol 3.0 U 12 3.0 05/16/12 15:10 05/18/12 14:37 5 ug/L 7.4 05/16/12 15:10 05/18/12 14:37 5 0.30 ug/L **Phenanthrene** 0.92 J 5 Anthracene 0.25 U 4.9 0.25 ug/L 05/16/12 15:10 05/18/12 14:37 Di-n-butyl phthalate 05/16/12 15:10 0.54 U 12 0.54 ug/L 05/18/12 14:37 5 5 0.34 U Fluoranthene 12 0.34 ug/L 05/16/12 15:10 05/18/12 14:37 5 Pyrene 0.54 9.9 0.54 ug/L 05/16/12 15:10 05/18/12 14:37 5 Butyl benzyl phthalate 0.59 U 12 0.59 ug/L 05/16/12 15:10 05/18/12 14:37 3,3'-Dichlorobenzidine 0.89 U 49 0.89 ug/L 05/16/12 15:10 05/18/12 14:37 5 9.9 ug/L 5 Benzo[a]anthracene 0.39 U 0.39 05/16/12 15:10 05/18/12 14:37 Bis(2-ethylhexyl) phthalate 12 05/16/12 15:10 05/18/12 14:37 5 1.8 U 1.8 ug/L Chrysene 0.39 U 7.4 0.39 ug/L 05/16/12 15:10 05/18/12 14:37 5 Di-n-octyl phthalate 0.79 U 25 0.79 ug/L 05/16/12 15:10 05/18/12 14:37 5 0.34 U 9.9 0.34 05/16/12 15:10 5 Benzo[b]fluoranthene ug/L 05/18/12 14:37 Benzo[k]fluoranthene 0.44 U 9.9 0.44 ug/L 05/16/12 15:10 05/18/12 14:37 5 ug/L Benzo[a]pyrene 0.39 U 7.4 0.39 05/16/12 15:10 05/18/12 14:37 5 Indeno[1,2,3-cd]pyrene 0.34 U 9.9 0.34 ug/L 05/16/12 15:10 05/18/12 14:37 5 Dibenz(a,h)anthracene 0.39 U 12 0.39 ug/L 05/16/12 15:10 05/18/12 14:37 5 5 Benzo[g,h,i]perylene 0.39 U 12 0.39 ug/L 05/16/12 15:10 05/18/12 14:37 Limits Dil Fac Surrogate %Recovery Qualifier Prepared Analyzed 10 - 94 05/16/12 15:10 05/18/12 14:37 5 Phenol-d6 17 2,4,6-Tribromophenol 72 10 - 123 05/16/12 15:10 05/18/12 14:37 5 2-Fluorobiphenyl 64 43 - 116 05/16/12 15:10 05/18/12 14:37 5 23 10 - 100 05/16/12 15:10 05/18/12 14:37 5 2-Fluorophenol 35 - 114 5 Nitrobenzene-d5 90 05/16/12 15:10 05/18/12 14:37 Terphenyl-d14 63 33 - 141 05/16/12 15:10 05/18/12 14:37 5

Method: 8270C LL - Semivolatile Org	ganic Compounds b	y GCMS - Low Levels - DL

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	05/16/12 15:10	05/21/12 13:06	50
2,4,6-Tribromophenol	0	X	10 - 123	05/16/12 15:10	05/21/12 13:06	50
2-Fluorobiphenyl	0	X	43 - 116	05/16/12 15:10	05/21/12 13:06	50
2-Fluorophenol	0	Χ	10 - 100	05/16/12 15:10	05/21/12 13:06	50
Nitrobenzene-d5	0	X	35 - 114	05/16/12 15:10	05/21/12 13:06	50

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Client Sample ID: MW-6

Date Collected: 05/11/12 13:30

Date Received: 05/12/12 09:42

Lab Sample ID: 600-54909-9

TestAmerica Job ID: 600-54909-1

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	33 - 141	05/16/12 15:10	05/21/12 13:06	50

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	9.6		2.0	0.81	mg/L	- 10 - 10	05/18/12 09:26	05/19/12 01:39	1
>C12-C28	4.6		2.0	0.94	mg/L		05/18/12 09:26	05/19/12 01:39	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/19/12 01:39	1
C6-C35	14		2.0	1.5	mg/L		05/18/12 09:26	05/19/12 01:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	101		70 - 130				05/18/12 09:26	05/19/12 01:39	1

Method: 6010B - Metals (ICP)	Decult	Ovalifian	MOI (Adi)	en.	l lmi4	D	Dramarad	Amalumad	Dil Faa
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit		Prepared	Analyzed	Dil Fac
Arsenic	0.067		0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:36	1
Aluminum	0.053	JB	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:36	1
Barium	0.41		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:36	1
Cobalt	0.0012) 	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:36	1
Chromium	0.0023	J	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:36	1
Copper	0.0029	J	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:36	1
Manganese	0.72		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:36	1
Nickel	0.0055	J	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:36	1
Lead	0.011		0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:36	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:36	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:36	1
Vanadium	0.0042	J	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:36	1
Zinc	0.012	JB	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:36	1

Method: 7470A - Mercury (CVAA)									
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 13:18	1

Client Sample ID: TRIP BLANK Lab Sample ID: 600-54909-10 **Matrix: Water**

Date Collected: 05/11/12 00:00 Date Received: 05/12/12 09:42

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/16/12 01:23	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/16/12 01:23	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/16/12 01:23	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/16/12 01:23	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/16/12 01:23	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/16/12 01:23	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/16/12 01:23	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/16/12 01:23	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/16/12 01:23	1
Acetone	0.99	U	5.0	0.99	ug/L			05/16/12 01:23	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/16/12 01:23	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/16/12 01:23	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/16/12 01:23	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/16/12 01:23	1

TestAmerica Houston 7/18/2012

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Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Lab Sample ID: 600-54909-10

Client Sample ID: TRIP BLANK

Date Collected: 05/11/12 00:00 Date Received: 05/12/12 09:42 Matrix: Water

TestAmerica Job ID: 600-54909-1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fa
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/16/12 01:23	
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/16/12 01:23	
Benzene	0.080	U	1.0	0.080	ug/L			05/16/12 01:23	
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/16/12 01:23	
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/16/12 01:23	
I,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/16/12 01:23	
I,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/16/12 01:23	
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/16/12 01:23	
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/16/12 01:23	
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/16/12 01:23	
Chloroform	0.13	U	1.0		ug/L			05/16/12 01:23	
Bromodichloromethane	0.16		1.0		ug/L			05/16/12 01:23	
1,1-Dichloropropene	0.21		1.0		ug/L			05/16/12 01:23	
cis-1,3-Dichloropropene	0.18		1.0		ug/L			05/16/12 01:23	
4-Methyl-2-pentanone (MIBK)	0.47		2.0		ug/L			05/16/12 01:23	
Toluene	0.15		1.0		ug/L			05/16/12 01:23	
rans-1,3-Dichloropropene	0.10		1.0		ug/L			05/16/12 01:23	
1,1,2-Trichloroethane	0.21		1.0		ug/L			05/16/12 01:23	
Tetrachloroethene	0.20		1.0		ug/L			05/16/12 01:23	
	0.13		1.0		ug/L			05/16/12 01:23	
I,3-Dichloropropane 2-Hexanone	0.22				-			05/16/12 01:23	
			2.0		ug/L				
Dibromochloromethane	0.15		1.0		ug/L			05/16/12 01:23	
1,2-Dibromoethane	0.18		1.0		ug/L			05/16/12 01:23	
Chlorobenzene	0.12		1.0		ug/L			05/16/12 01:23	
1,1,1,2-Tetrachloroethane	0.18		1.0		ug/L			05/16/12 01:23	
Ethylbenzene	0.11		1.0		ug/L			05/16/12 01:23	
Xylenes, Total	0.26		1.0		ug/L			05/16/12 01:23	
Styrene	0.070		1.0	0.070				05/16/12 01:23	
Bromoform	0.19		1.0		ug/L			05/16/12 01:23	
sopropylbenzene	0.18		1.0		ug/L			05/16/12 01:23	
Bromobenzene	0.19		1.0		ug/L			05/16/12 01:23	
1,2,3-Trichloropropane	0.29		1.0		ug/L			05/16/12 01:23	
1,1,2,2-Tetrachloroethane	0.22		1.0		ug/L			05/16/12 01:23	
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/16/12 01:23	
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/16/12 01:23	
4-Chlorotoluene	0.14	U	1.0		ug/L			05/16/12 01:23	
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/16/12 01:23	
ert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/16/12 01:23	
1-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/16/12 01:23	
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/16/12 01:23	
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/16/12 01:23	
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 01:23	
,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 01:23	
,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 01:23	
n-Butylbenzene	0.16	U	1.0		ug/L			05/16/12 01:23	
1,2-Dibromo-3-Chloropropane	0.81	U	1.0		ug/L			05/16/12 01:23	
I,2,4-Trichlorobenzene	0.31		1.0		ug/L			05/16/12 01:23	
Hexachlorobutadiene	0.17		1.0		ug/L			05/16/12 01:23	
Naphthalene	0.32		1.0		ug/L			05/16/12 01:23	

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Lab Sample ID: 600-54909-10

Matrix: Water

CI	ient	Samp	le ID:	TRIP	BLANK

Date Collected: 05/11/12 00:00 Date Received: 05/12/12 09:42

%Recovery Qualifie	er Limits	Prepared	Analyzed	Dil Fac
98	67 - 139		/16/12 01:23	1
80	62 - 130	05	/16/12 01:23	1
86	70 - 130	05	/16/12 01:23	1
79	50 ₋ 134	05	/16/12 01:23	
	98 80 86	98 67 - 139 80 62 - 130 86 70 - 130	98 67 - 139 05 80 62 - 130 05 86 70 - 130 05	98 67 - 139 05/16/12 01:23 80 62 - 130 05/16/12 01:23 86 70 - 130 05/16/12 01:23

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	1.0	0.18	ug/L	8260B
1,1,1-Trichloroethane	1.0	0.15	ug/L	8260B
1,1,2,2-Tetrachloroethane	1.0	0.22	ug/L	8260B
1,1,2-Trichloroethane	1.0	0.28	ug/L	8260B
1,1-Dichloroethane	1.0	0.11	ug/L	8260B
1,1-Dichloroethene	1.0	0.19	ug/L	8260B
1,1-Dichloropropene	1.0	0.21	ug/L	8260B
1,2,3-Trichloropropane	1.0	0.29	ug/L	8260B
1,2,4-Trichlorobenzene	1.0	0.31	ug/L	8260B
1,2,4-Trimethylbenzene	1.0	0.14	ug/L	8260B
1,2-Dibromo-3-Chloropropane	1.0	0.81	ug/L	8260B
1,2-Dibromoethane	1.0	0.18	ug/L	8260B
1,2-Dichlorobenzene	1.0	0.10	ug/L	8260B
1,2-Dichloroethane	1.0	0.14	ug/L	8260B
1,2-Dichloropropane	1.0	0.16	ug/L	8260B
1,3,5-Trimethylbenzene	1.0	0.10	ug/L	8260B
1,3-Dichlorobenzene	1.0	0.13	ug/L	8260B
1,3-Dichloropropane	1.0	0.22	ug/L	8260B
1,4-Dichlorobenzene	1.0	0.11	ug/L	8260B
2,2-Dichloropropane	1.0	0.13	ug/L	8260B
2-Butanone (MEK)	2.0	0.76	ug/L	8260B
2-Chlorotoluene	1.0	0.13	ug/L	8260B
2-Hexanone	2.0	0.35	ug/L	8260B
4-Chlorotoluene	1.0	0.14	ug/L	8260B
4-Isopropyltoluene		0.10	ug/L	8260B
4-Methyl-2-pentanone (MIBK)	2.0	0.45	ug/L	8260B
Acetone	5.0	0.99	ug/L	8260B
Benzene	1.0	0.080	ug/L	8260B
Bromobenzene	1.0	0.19	ug/L	8260B
Bromodichloromethane	1.0	0.16	ug/L	8260B
Bromoform	1.0	0.19	ug/L	8260B
Bromomethane	2.0	0.25	ug/L	8260B
Carbon disulfide	2.0	0.24	ug/L	8260B
Carbon tetrachloride	1.0	0.15	ug/L	8260B
Chlorobenzene	1.0	0.12	ug/L	8260B
Chloroethane	2.0	0.080	ug/L	8260B
Chloroform	1.0	0.13	ug/L	8260B
Chloromethane	2.0	0.18	ug/L	8260B
cis-1,2-Dichloroethene	1.0	0.060	ug/L	8260B
cis-1,3-Dichloropropene	1.0	0.18	ug/L	8260B
Dibromochloromethane	1.0	0.15	ug/L	8260B
Dibromomethane	1.0	0.52	ug/L	8260B
Dichlorodifluoromethane	1.0	0.12	ug/L	8260B
Ethylbenzene	1.0	0.11	ug/L	8260B
Hexachlorobutadiene	1.0	0.17	ug/L	8260B
Iodomethane	2.0	2.0	ug/L	8260B
Isopropylbenzene	1.0	0.18	ug/L	8260B
Methyl tert-butyl ether	1.0	0.12	ug/L	8260B
Methylene Chloride	5.0	0.12	ug/L	8260B
Naphthalene	1.0	0.13	ug/L ug/L	8260B
n-Butylbenzene	1.0	0.32	ug/L ug/L	8260B
N-Propylbenzene	1.0	0.15	ug/L	8260B
sec-Butylbenzene Styrono	1.0	0.12	ug/L	8260B
Styrene	1.0	0.070	ug/L	8260B

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	MQL	MDL	Units	Method
tert-Butylbenzene	1.0	0.080	ug/L	8260B
Tetrachloroethene	1.0	0.13	ug/L	8260B
Toluene	1.0	0.15	ug/L	8260B
trans-1,2-Dichloroethene	1.0	0.090	ug/L	8260B
trans-1,3-Dichloropropene	1.0	0.21	ug/L	8260B
Trichloroethene	1.0	0.18	ug/L	8260B
Trichlorofluoromethane	1.0	0.080	ug/L	8260B
Vinyl chloride	2.0	0.11	ug/L	8260B
Xylenes, Total	1.0	0.26	ug/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
2,4,5-Trichlorophenol	2.0	0.25	ug/L	8270C LL
2,4,6-Trichlorophenol	2.0	0.18	ug/L	8270C LL
2,4-Dichlorophenol	2.5	0.15	ug/L	8270C LL
2,4-Dimethylphenol	2.5	0.31	ug/L	8270C LL
2,4-Dinitrophenol	5.0	0.39	ug/L	8270C LL
2,4-Dinitrotoluene	1.5	0.13	ug/L	8270C LL
2,6-Dinitrotoluene	1.0	0.080	ug/L	8270C LL
2-Chloronaphthalene	1.5	0.080	ug/L	8270C LL
2-Chlorophenol	2.0	0.13	ug/L	8270C LL
2-Methylnaphthalene	1.5	0.070	ug/L	8270C LL
2-Nitroaniline	2.5	0.19	ug/L	8270C LL
2-Nitrophenol	1.0	0.22	ug/L	8270C LL
3 & 4 Methylphenol	1.0	0.20	ug/L	8270C LL
3,3'-Dichlorobenzidine	10	0.18	ug/L	8270C LL
3-Nitroaniline	2.5	0.16	ug/L	8270C LL
4,6-Dinitro-2-methylphenol	2.5	0.83	ug/L	8270C LL
4-Bromophenyl phenyl ether	1.5	0.10	ug/L	8270C LL
4-Chloro-3-methylphenol	1.0	0.17	ug/L	8270C LL
4-Chloroaniline	1.0	0.21	ug/L	8270C LL
4-Chlorophenyl phenyl ether	1.5	0.10	ug/L	8270C LL
4-Nitroaniline	2.5	0.25	ug/L	8270C LL
4-Nitrophenol	2.5	0.56	ug/L	8270C LL
Acenaphthene	1.0	0.080	ug/L	8270C LL
Acenaphthylene	1.0	0.060	ug/L	8270C LL
Aniline	1.5	0.080	ug/L	8270C LL
Anthracene	1.0	0.050	ug/L	8270C LL
Benzo[a]anthracene	2.0	0.080	ug/L	8270C LL
Benzo[a]pyrene	1.5	0.080	ug/L	8270C LL
Benzo[b]fluoranthene	2.0	0.070	ug/L	8270C LL
Benzo[g,h,i]perylene	2.5	0.080	ug/L	8270C LL
Benzo[k]fluoranthene	2.0	0.090	ug/L	8270C LL
Benzyl alcohol	5.5	0.17	ug/L	8270C LL
Bis(2-chloroethoxy)methane	1.5	0.13	ug/L	8270C LL
Bis(2-chloroethyl)ether	1.5	0.15	ug/L	8270C LL
Bis(2-chloroisopropyl) ether	1.5	0.40	ug/L	8270C LL
Bis(2-ethylhexyl) phthalate	2.5	0.37	ug/L	8270C LL
Butyl benzyl phthalate	2.5	0.12	ug/L	8270C LL
Chrysene	1.5	0.080	ug/L	8270C LL
Dibenz(a,h)anthracene	2.5	0.080	ug/L	8270C LL
Dibenzofuran	1.5	0.080	ug/L	8270C LL
Diethyl phthalate	2.5	1.5	ug/L	8270C LL

TestAmerica Houston 7/18/2012

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

TestAmerica Job ID: 600-54909-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	MQL	MDL	Units	Method
Dimethyl phthalate	2.5	0.070	ug/L	8270C LL
Di-n-butyl phthalate	2.5	0.11	ug/L	8270C LL
Di-n-octyl phthalate	5.0	0.16	ug/L	8270C LL
Fluoranthene	2.5	0.070	ug/L	8270C LL
Fluorene	1.5	0.070	ug/L	8270C LL
Hexachlorobenzene	1.5	0.11	ug/L	8270C LL
Hexachlorocyclopentadiene	1.5	0.13	ug/L	8270C LL
Hexachloroethane	2.0	0.10	ug/L	8270C LL
Indeno[1,2,3-cd]pyrene	2.0	0.070	ug/L	8270C LL
Isophorone	1.5	0.11	ug/L	8270C LL
Nitrobenzene	1.5	0.11	ug/L	8270C LL
N-Nitrosodi-n-propylamine	2.5	0.10	ug/L	8270C LL
Pentachlorophenol	2.5	0.61	ug/L	8270C LL
Phenanthrene	1.5	0.060	ug/L	8270C LL
Phenol	1.5	0.040	ug/L	8270C LL
Pyrene	2.0	0.11	ug/L	8270C LL

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	MQL	MDL	Units	Method
>C12-C28	2.0	0.96	mg/L	TX 1005
>C28-C35	2.0	0.96	mg/L	TX 1005
C6-C12	2.0	0.83	mg/L	TX 1005
C6-C35	2.0	1.6	mg/L	TX 1005

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method	
Aluminum	0.50	0.022	mg/L	6010B	
Arsenic	0.010	0.0033	mg/L	6010B	
Barium	0.020	0.0022	mg/L	6010B	
Chromium	0.010	0.0016	mg/L	6010B	
Cobalt	0.010	0.00063	mg/L	6010B	
Copper	0.010	0.0015	mg/L	6010B	
Lead	0.010	0.0029	mg/L	6010B	
Manganese	0.010	0.00084	mg/L	6010B	
Nickel	0.010	0.0018	mg/L	6010B	
Selenium	0.040	0.0042	mg/L	6010B	
Thallium	0.030	0.0078	mg/L	6010B	
Vanadium	0.010	0.0017	mg/L	6010B	
Zinc	0.030	0.0022	mg/L	6010B	

Method: 7470A - Mercury (CVAA)

Analyte	MQL	MDL	Units	Method
Mercury	0.00020	0.000026	mg/L	7470A

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

				Percent Su	rrogate Recovery ((Acceptance Limits)
		BFB	DBFM	TOL	12DCE	
Lab Sample ID	Client Sample ID	(67-139)	(62-130)	(70-130)	(50-134)	
600-54909-1	MW-1	94	80	92	81	
600-54909-2	DUP-1	94	81	90	81	
600-54909-3 - DL	MW-5	98	80	88	75	
600-54909-3	MW-5	100	81	87	74	
600-54909-3 MS - DL	MW-5	100	84	88	78	
600-54909-3 MS	MW-5	104	85	84	80	
600-54909-3 MSD - DL	MW-5	97	84	86	78	
600-54909-3 MSD	MW-5	102	88	87	79	
600-54909-4	MW-11	94	81	87	77	
600-54909-5	MW-10	98	80	88	79	
600-54909-6	MW-8	97	84	87	81	
600-54909-7	DUP-2	100	78	85	81	
600-54909-8	MW-7	101	81	85	83	
600-54909-8 MS	MW-7	101	85	85	82	
600-54909-8 MSD	MW-7	98	86	85	78	
600-54909-9	MW-6	100	82	87	80	
600-54909-9 - DL	MW-6	101	78	86	78	
600-54909-10	TRIP BLANK	98	80	86	79	
_CS 600-79279/3	Lab Control Sample	98	85	86	80	
_CS 600-79300/5	Lab Control Sample	99	82	87	77	
LCS 600-79383/3	Lab Control Sample	100	83	88	79	
LCS 600-79394/3	Lab Control Sample	100	85	85	80	
MB 600-79279/4	Method Blank	99	78	87	75	
MB 600-79300/7	Method Blank	103	81	86	80	
MB 600-79383/4	Method Blank	102	80	87	78	
MB 600-79394/4	Method Blank	100	82	84	80	
Surrogate Legend						

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water Prep Type: Total/NA

				Percent Sui	rrogate Reco	very (Accept	ance Limit
		PHL	TBP	FBP	2FP	NBZ	TPH
Lab Sample ID	Client Sample ID	(10-94)	(10-123)	(43-116)	(10-100)	(35-114)	(33-141)
600-54909-1	MW-1	23	88	79	38	74	77
600-54909-2	DUP-1	22	82	74	34	67	75
600-54909-3	MW-5	22	87	83	35	92	78
600-54909-3 MS	MW-5	27	99	92	39	85	82
600-54909-3 MSD	MW-5	14	100	95	39	97	84
600-54909-4	MW-11	16	69	60	26	59	78
600-54909-5	MW-10	19	73	64	30	60	76
600-54909-6	MW-8	19	78	69	33	68	82
600-54909-7	DUP-2	18	72	63	31	64	77
600-54909-8	MW-7	19	85	76	30	72	80
600-54909-8 MS	MW-7	17	76	61	27	61	69
600-54909-8 MSD	MW-7	20	82	69	32	71	74

TestAmerica Houston 7/18/2012

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water Prep Type: Total/NA

				Percent Sui	rogate Reco	very (Accept	ance Limits
		PHL	TBP	FBP	2FP	NBZ	TPH
Lab Sample ID	Client Sample ID	(10-94)	(10-123)	(43-116)	(10-100)	(35-114)	(33-141)
600-54909-9	MW-6	17	72	64	23	90	63
600-54909-9 - DL	MW-6	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-79421/2-A	Lab Control Sample	24	89	93	41	91	90
MB 600-79421/1-A	Method Blank	25	79	98	43	96	93

Surrogate Legend

PHL = Phenol-d6

TBP = 2,4,6-Tribromophenol

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

NBZ = Nitrobenzene-d5

TPH = Terphenyl-d14

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		ОТРН	
Lab Sample ID	Client Sample ID	(70-130)	
600-54909-1	MW-1	100	
600-54909-2	DUP-1	92	
600-54909-3	MW-5	108	
600-54909-3 MS	MW-5	94	
600-54909-3 MSD	MW-5	127	
600-54909-4	MW-11	93	
600-54909-5	MW-10	93	
600-54909-6	MW-8	96	
600-54909-7	DUP-2	95	
600-54909-8	MW-7	95	
600-54909-8 MS	MW-7	126	
600-54909-8 MSD	MW-7	129	
600-54909-9	MW-6	101	
LCS 600-79551/2-A	Lab Control Sample	129	
MB 600-79551/1-A	Method Blank	94	

TestAmerica Houston 7/18/2012

QC Sample Results

MQL (Adj)

SDL Unit

D

Prepared

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

MB MB Result Qualifier

Lab Sample ID: MB 600-79279/4

Matrix: Water

Analyte

Bromoform

Isopropylbenzene

N-Propylbenzene

2-Chlorotoluene

1,2,3-Trichloropropane 1,1,2,2-Tetrachloroethane

Bromobenzene

Analysis Batch: 79279

Client Sample ID: Method Blank

Analyzed

Prep Type: Total/NA

Dil Fac

raidijto	rtoouit	Qualifici	ma_ (raj)	055	0	D Tropulou	Allalyzou	D uo
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L		05/15/12 00:36	1
Chloromethane	0.18	U	2.0	0.18	ug/L		05/15/12 00:36	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L		05/15/12 00:36	1
Bromomethane	0.25	U	2.0	0.25	ug/L		05/15/12 00:36	1
Chloroethane	0.080	U	2.0	0.080	ug/L		05/15/12 00:36	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L		05/15/12 00:36	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L		05/15/12 00:36	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L		05/15/12 00:36	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L		05/15/12 00:36	1
Acetone	0.99	U	5.0	0.99	ug/L		05/15/12 00:36	1
Iodomethane	2.0	U	2.0	2.0	ug/L		05/15/12 00:36	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L		05/15/12 00:36	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L		05/15/12 00:36	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L		05/15/12 00:36	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L		05/15/12 00:36	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L		05/15/12 00:36	1
Benzene	0.080	U	1.0	0.080	ug/L		05/15/12 00:36	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L		05/15/12 00:36	1
Trichloroethene	0.18	U	1.0	0.18	ug/L		05/15/12 00:36	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L		05/15/12 00:36	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L		05/15/12 00:36	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L		05/15/12 00:36	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L		05/15/12 00:36	1
Dibromomethane	0.52	U	1.0	0.52	ug/L		05/15/12 00:36	1
Chloroform	0.13	U	1.0	0.13	ug/L		05/15/12 00:36	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L		05/15/12 00:36	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L		05/15/12 00:36	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L		05/15/12 00:36	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L		05/15/12 00:36	1
Toluene	0.15	U	1.0	0.15	ug/L		05/15/12 00:36	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L		05/15/12 00:36	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L		05/15/12 00:36	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L		05/15/12 00:36	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L		05/15/12 00:36	1
2-Hexanone	0.35	U	2.0	0.35	ug/L		05/15/12 00:36	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L		05/15/12 00:36	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L		05/15/12 00:36	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L		05/15/12 00:36	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L		05/15/12 00:36	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L		05/15/12 00:36	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L		05/15/12 00:36	1
Styrene	0.070	U	1.0	0.070	ug/L		05/15/12 00:36	1

05/15/12 00:36

05/15/12 00:36

05/15/12 00:36

05/15/12 00:36

05/15/12 00:36

05/15/12 00:36

05/15/12 00:36

1.0

1.0

1.0

1.0

1.0

1.0

1.0

0.19 ug/L

0.18 ug/L

0.19 ug/L

0.29 ug/L

0.22 ug/L

0.15 ug/L

0.13 ug/L

0.19 U

0.18 U

0.19 U

0.29 U

0.22 U

0.15 U

0.13 U

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79279/4

MB MB

Matrix: Water

Analysis Batch: 79279

Client Sample ID: Method Blank

Prep Type: Total/NA Dil Fac Analyzed 05/15/12 00:36

Analyte Result Qualifier MQL (Adj) SDL Unit D Prepared 4-Chlorotoluene 0.14 U 1.0 0.14 ug/L 1,3,5-Trimethylbenzene 0.10 U 1.0 0.10 ug/L 05/15/12 00:36 0.080 U 1.0 0.080 ug/L tert-Butylbenzene 05/15/12 00:36 4-Isopropyltoluene 0.10 U 1.0 0.10 ug/L 05/15/12 00:36 1,2,4-Trimethylbenzene 0.14 U 1.0 0.14 ug/L 05/15/12 00:36 sec-Butylbenzene 0.12 U 1.0 0.12 ug/L 05/15/12 00:36 1,3-Dichlorobenzene 0.13 U 1.0 0.13 ug/L 05/15/12 00:36 1,4-Dichlorobenzene 0.11 U 1.0 0.11 ug/L 05/15/12 00:36 1,2-Dichlorobenzene 0.10 U 1.0 0.10 ug/L 05/15/12 00:36 n-Butylbenzene 0.16 U 1.0 0.16 ug/L 05/15/12 00:36 0.81 U 1,2-Dibromo-3-Chloropropane 1.0 0.81 ug/L 05/15/12 00:36 1.0 0.31 ug/L 1,2,4-Trichlorobenzene 0.31 U 05/15/12 00:36 Hexachlorobutadiene 0.17 U 1.0 0.17 ug/L 05/15/12 00:36 Naphthalene 0.32 U 1.0 0.32 ug/L 05/15/12 00:36

MB MB

Surrogate	%Recovery	Qualifier L	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99	6	67 ₋ 139	70,	05/15/12 00:36	1
Dibromofluoromethane	78	6	62 ₋ 130		05/15/12 00:36	1
Toluene-d8 (Surr)	87	7	70 - 130		05/15/12 00:36	1
1,2-Dichloroethane-d4 (Surr)	75	5	50 - 134		05/15/12 00:36	1

Lab Sample ID: LCS 600-79279/3

Matrix: Water

Client Sample ID	: Lab Control Sample
	Prep Type: Total/NA

Analysis Batch: 79279							
	Spike	LCS	LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	10.0	33.3	*	ug/L		333	12 _ 136
Chloromethane	10.0	14.1		ug/L		141	32 - 151
Vinyl chloride	10.0	11.7		ug/L		117	47 - 146
Bromomethane	10.0	12.7		ug/L		127	52 - 146
Chloroethane	10.0	11.6		ug/L		116	56 ₋ 144
Trichlorofluoromethane	10.0	12.9		ug/L		129	55 ₋ 142
1,1-Dichloroethene	10.0	10.8		ug/L		108	59 - 145
rans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 132
Methyl tert-butyl ether	10.0	8.52		ug/L		85	63 - 142
Acetone	20.0	16.5		ug/L		83	28 - 152
odomethane	10.0	9.16		ug/L		92	17 _ 197
Carbon disulfide	10.0	10.4		ug/L		104	32 - 177
Methylene Chloride	10.0	9.32		ug/L		93	62 _ 134
cis-1,2-Dichloroethene	10.0	8.80		ug/L		88	69 - 129
2-Butanone (MEK)	20.0	15.0		ug/L		75	59 - 133
Carbon tetrachloride	10.0	10.9		ug/L		109	59 - 147
Benzene	10.0	9.58		ug/L		96	69 - 131
1,2-Dichloroethane	10.0	9.77		ug/L		98	66 - 140
Trichloroethene	10.0	9.45		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	10.6		ug/L		106	65 _ 142
1,1-Dichloroethane	10.0	9.75		ug/L		98	66 _ 126
1,2-Dichloropropane	10.0	9.59		ug/L		96	72 - 125
2,2-Dichloropropane	10.0	10.1		ug/L		101	43 - 169

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TestAmerica Job ID: 600-54909-1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79279/3

Matrix: Water

Analysis Batch: 79279

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Analysis Batch: 79279	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Dibromomethane	10.0	9.61	1 <u>2</u>	ug/L		96	68 - 134
Chloroform	10.0	9.54		ug/L		95	69 - 128
Bromodichloromethane	10.0	9.63		ug/L		96	73 ₋ 130
1,1-Dichloropropene	10.0	10.1		ug/L		101	59 - 134
cis-1,3-Dichloropropene	10.0	9.73		ug/L		97	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	18.2		ug/L		91	56 - 142
Toluene	10.0	9.43		ug/L		94	67 ₋ 130
trans-1,3-Dichloropropene	10.0	10.7		ug/L		107	63 - 133
1,1,2-Trichloroethane	10.0	9.42		ug/L		94	68 - 130
Tetrachloroethene	10.0	13.0		ug/L		130	61 - 142
1,3-Dichloropropane	10.0	9.10		ug/L		91	62 - 132
2-Hexanone	20.0	18.1		ug/L		91	51 ₋ 130
Dibromochloromethane	10.0	9.71		ug/L		97	58 ₋ 132
1,2-Dibromoethane	10.0	9.66		ug/L		97	68 - 128
Chlorobenzene	10.0	9.29		ug/L		93	60 _ 136
1,1,1,2-Tetrachloroethane	10.0	9.58		ug/L		96	57 - 136
Ethylbenzene	10.0	9.33		ug/L		93	68 - 128
Xylenes, Total	30.0	28.4		ug/L		95	68 - 132
Styrene	10.0	9.86		ug/L		99	68 - 133
Bromoform	10.0	9.04		ug/L		90	39 - 149
Isopropylbenzene	10.0	11.0		ug/L		110	79 - 146
Bromobenzene	10.0	9.15		ug/L		91	61 - 134
1,2,3-Trichloropropane	10.0	9.13		ug/L		91	52 - 157
1,1,2,2-Tetrachloroethane	10.0	9.58		ug/L		96	68 ₋ 134
N-Propylbenzene	10.0	9.67		ug/L		97	61 - 137
2-Chlorotoluene	10.0	9.50		ug/L		95	58 - 135
4-Chlorotoluene	10.0	9.59		ug/L		96	64 ₋ 134
1,3,5-Trimethylbenzene	10.0	9.48		ug/L		95	63 - 132
tert-Butylbenzene	10.0	10.1		ug/L		101	67 - 148
4-Isopropyltoluene	10.0	10.4		ug/L		104	63 _ 138
1,2,4-Trimethylbenzene	10.0	9.45		ug/L		94	63 - 131
sec-Butylbenzene	10.0	9.92		ug/L		99	61 - 134
1,3-Dichlorobenzene	10.0	9.39		ug/L		94	71 - 132
1,4-Dichlorobenzene	10.0	9.41		ug/L		94	72 ₋ 131
1,2-Dichlorobenzene	10.0	9.17		ug/L		92	71 - 133
n-Butylbenzene	10.0	10.0		ug/L		100	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	13.4		ug/L		134	43 _ 141
1,2,4-Trichlorobenzene	10.0	10.3		ug/L		103	55 ₋ 151
Hexachlorobutadiene	10.0	10.2		ug/L		102	53 _ 140
Naphthalene	10.0	10.6		ug/L		106	19 - 195

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	98	F	67 - 139
Dibromofluoromethane	85		62 - 130
Toluene-d8 (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	80		50 ₋ 134

TestAmerica Houston 7/18/2012

QC Sample Results

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79300/7

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Method Blank

Prep Type: Total/NA

		MB							
Analyte		Qualifier	MQL (Adj)		Unit	D	Prepared	Analyzed	Dil Fa
Dichlorodifluoromethane	0.12		1.0		ug/L			05/15/12 12:13	
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 12:13	
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 12:13	
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 12:13	,
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 12:13	•
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 12:13	
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 12:13	,
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 12:13	
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/15/12 12:13	
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 12:13	
lodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 12:13	•
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 12:13	•
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 12:13	eraraar,
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 12:13	
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 12:13	
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	calcolling.
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 12:13	
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 12:13	
Trichloroethene	0.18	U	1.0		ug/L			05/15/12 12:13	
1,1,1-Trichloroethane	0.15		1.0		ug/L			05/15/12 12:13	
1,1-Dichloroethane	0.11	U	1.0		ug/L			05/15/12 12:13	
1,2-Dichloropropane	0.16		1.0		ug/L			05/15/12 12:13	
2,2-Dichloropropane	0.13		1.0		ug/L			05/15/12 12:13	
Dibromomethane	0.52		1.0		ug/L			05/15/12 12:13	
Chloroform	0.13		1.0		ug/L			05/15/12 12:13	
Bromodichloromethane	0.16		1.0		ug/L			05/15/12 12:13	
1,1-Dichloropropene	0.21		1.0		ug/L			05/15/12 12:13	
cis-1,3-Dichloropropene	0.18		1.0		ug/L			05/15/12 12:13	
4-Methyl-2-pentanone (MIBK)	0.45		2.0		ug/L			05/15/12 12:13	,
Toluene	0.15		1.0		ug/L			05/15/12 12:13	
trans-1,3-Dichloropropene	0.13		1.0		ug/L			05/15/12 12:13	
1,1,2-Trichloroethane	0.28		1.0		ug/L			05/15/12 12:13	
Tetrachloroethene	0.13		1.0		ug/L			05/15/12 12:13	
	0.13		1.0					05/15/12 12:13	
1,3-Dichloropropane	0.35				ug/L				
2-Hexanone	0.35		2.0		ug/L ug/L			05/15/12 12:13	,
Dibromochloromethane			1.0					05/15/12 12:13	00,000,00
1,2-Dibromoethane	0.18		1.0		ug/L			05/15/12 12:13	•
Chlorobenzene	0.12		1.0		ug/L			05/15/12 12:13	
1,1,1,2-Tetrachloroethane	0.18		1.0		ug/L			05/15/12 12:13	
Ethylbenzene	0.11		1.0		ug/L			05/15/12 12:13	ĺ
Xylenes, Total	0.26		1.0		ug/L			05/15/12 12:13	•
Styrene	0.070		1.0	0.070				05/15/12 12:13	
Bromoform	0.19		1.0		ug/L			05/15/12 12:13	•
Isopropylbenzene	0.18		1.0		ug/L			05/15/12 12:13	•
Bromobenzene	0.19		1.0		ug/L			05/15/12 12:13	
1,2,3-Trichloropropane	0.29		1.0		ug/L			05/15/12 12:13	
1,1,2,2-Tetrachloroethane	0.22	U	1.0		ug/L			05/15/12 12:13	•
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 12:13	

TestAmerica Houston 7/18/2012

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79300/7

Client: Pastor, Behling & Wheeler LLC

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Method Blank Prep Type: Total/NA

мв мв Analyte Result Qualifier MQL (Adj) SDL Unit D Dil Fac Prepared Analyzed 4-Chlorotoluene 0.14 U 1.0 0.14 ug/L 05/15/12 12:13 1,3,5-Trimethylbenzene 0.10 U 1.0 0.10 ug/L 05/15/12 12:13 0.080 U 1.0 0.080 ug/L tert-Butylbenzene 05/15/12 12:13 4-Isopropyltoluene 0.10 U 1.0 0.10 ug/L 05/15/12 12:13 1,2,4-Trimethylbenzene 0.14 U 1.0 0.14 ug/L 05/15/12 12:13 sec-Butylbenzene 0.12 U 1.0 0.12 ug/L 05/15/12 12:13 1,3-Dichlorobenzene 0.13 U 1.0 0.13 ug/L 05/15/12 12:13 1,4-Dichlorobenzene 0.11 U 1.0 0.11 ug/L 05/15/12 12:13 1.2-Dichlorobenzene 0.10 U 1.0 0.10 ug/L 05/15/12 12:13 n-Butylbenzene 0.16 U 1.0 0.16 ug/L 05/15/12 12:13 0.81 U 1,2-Dibromo-3-Chloropropane 1.0 0.81 ug/L 05/15/12 12:13 0.31 U 1.0 0.31 ug/L 05/15/12 12:13 1,2,4-Trichlorobenzene Hexachlorobutadiene 0.17 U 1.0 0.17 ug/L 05/15/12 12:13 Naphthalene 0.32 U 1.0 0.32 ug/L 05/15/12 12:13

MB MB

Surrogate	%Recovery	Qualifier Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103	67 - 13	9	÷.	05/15/12 12:13	1
Dibromofluoromethane	81	62 - 13)		05/15/12 12:13	1
Toluene-d8 (Surr)	86	70 - 13)		05/15/12 12:13	1
1,2-Dichloroethane-d4 (Surr)	80	50 - 13			05/15/12 12:13	1

Lab Sample ID: LCS 600-79300/5

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	10.0	34.5	*	ug/L		345	12 _ 136
Chloromethane	10.0	15.1		ug/L		151	32 - 151
Vinyl chloride	10.0	13.0		ug/L		130	47 _ 146
Bromomethane	10.0	13.0		ug/L		130	52 ₋ 146
Chloroethane	10.0	12.5		ug/L		125	56 ₋ 144
Trichlorofluoromethane	10.0	13.5		ug/L		135	55 ₋ 142
1,1-Dichloroethene	10.0	11.2		ug/L		112	59 - 145
rans-1,2-Dichloroethene	10.0	10.5		ug/L		105	70 _ 132
Methyl tert-butyl ether	10.0	8.87		ug/L		89	63 _ 142
Acetone	20.0	17.6		ug/L		88	28 _ 152
odomethane	10.0	9.68		ug/L		97	17 _ 197
Carbon disulfide	10.0	10.7		ug/L		107	32 - 177
Methylene Chloride	10.0	10.1		ug/L		101	62 _ 134
cis-1,2-Dichloroethene	10.0	9.32		ug/L		93	69 _ 129
2-Butanone (MEK)	20.0	16.8		ug/L		84	59 ₋ 133
Carbon tetrachloride	10.0	11.7		ug/L		117	59 ₋ 147
Benzene	10.0	10.2		ug/L		102	69 - 131
1,2-Dichloroethane	10.0	10.3		ug/L		103	66 - 140
Trichloroethene	10.0	9.97		ug/L		100	68 _ 130
1,1,1-Trichloroethane	10.0	11.1		ug/L		111	65 ₋ 142
1,1-Dichloroethane	10.0	10.6		ug/L		106	66 _ 126
1,2-Dichloropropane	10.0	10.3		ug/L		103	72 - 125
2,2-Dichloropropane	10.0	12.3		ug/L		123	43 - 169

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3

6

0

9

11

4.0

14

15

16

TestAmerica Job ID: 600-54909-1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79300/5

Matrix: Water

Analysis Batch: 79300

1,2,3-Trichloropropane

Hexachlorobutadiene

Naphthalene

1,1,2,2-Tetrachloroethane

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike LCS L		LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Dibromomethane	10.0	10.4	·	ug/L		104	68 - 134
Chloroform	10.0	10.3		ug/L		103	69 - 128
Bromodichloromethane	10.0	9.81		ug/L		98	73 - 130
1,1-Dichloropropene	10.0	10.5		ug/L		105	59 - 134
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	19.8		ug/L		99	56 - 142
Toluene	10.0	9.91		ug/L		99	67 - 130
trans-1,3-Dichloropropene	10.0	11.5		ug/L		115	63 - 133
1,1,2-Trichloroethane	10.0	9.99		ug/L		100	68 - 130
Tetrachloroethene	10.0	10.1		ug/L		101	61 - 142
1,3-Dichloropropane	10.0	9.80		ug/L		98	62 - 132
2-Hexanone	20.0	19.3		ug/L		97	51 - 130
Dibromochloromethane	10.0	10.2		ug/L		102	58 - 132
1,2-Dibromoethane	10.0	9.84		ug/L		98	68 - 128
Chlorobenzene	10.0	9.70		ug/L		97	60 - 136
1,1,1,2-Tetrachloroethane	10.0	9.78		ug/L		98	57 - 136
Ethylbenzene	10.0	9.87		ug/L		99	68 - 128
Xylenes, Total	30.0	30.1		ug/L		100	68 - 132
Styrene	10.0	10.2		ug/L		102	68 - 133
Bromoform	10.0	10.2		ug/L		102	39 - 149
Isopropylbenzene	10.0	11.5		ug/L		115	79 - 146
Bromobenzene	10.0	9.38		ug/L		94	61 - 134

N-Propylbenzene	10.0	10.1	ug/L	101	61 - 137
2-Chlorotoluene	10.0	9.77	ug/L	98	58 - 135
4-Chlorotoluene	10.0	10.1	ug/L	101	64 - 134
1,3,5-Trimethylbenzene	10.0	9.73	ug/L	97	63 - 132
tert-Butylbenzene	10.0	10.7	ug/L	107	67 - 148
4-Isopropyltoluene	10.0	10.8	ug/L	108	63 - 138
1,2,4-Trimethylbenzene	10.0	9.87	ug/L	99	63 - 131
sec-Butylbenzene	10.0	10.2	ug/L	102	61 - 134
1,3-Dichlorobenzene	10.0	9.67	ug/L	97	71 - 132
1,4-Dichlorobenzene	10.0	9.82	ug/L	98	72 - 131
1,2-Dichlorobenzene	10.0	9.56	ug/L	96	71 - 133
n-Butylbenzene	10.0	10.5	ug/L	105	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	11.6	ug/L	116	43 - 141
1,2,4-Trichlorobenzene	10.0	9.26	ug/L	93	55 ₋ 151

10.0

10.0

10.0

10.0

9.78

10.4

9.10

9.04

ug/L

ug/L

ug/L

ug/L

98

104

52 _ 157

68 - 134

53 - 140

19 - 195

90

LCS L	.cs
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Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	99	-	67 - 139
Dibromofluoromethane	82		62 - 130
Toluene-d8 (Surr)	87		70 - 130
1,2-Dichloroethane-d4 (Surr)	77		50 - 134

QC Sample Results

MQL (Adj)

1.0

SDL Unit

0.12 ug/L

D

Prepared

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

мв мв Result Qualifier

0.12 U

0.21 U

0.18 U

0.45 U

0.15 U

0.21 U

0.28 U

0.13 U

0.22 U

0.35 U

0.15 U

0.18 U

0.12 U

0.18 U

0.11 U

0.26 U

0.070 U

0.19 U

0.18 U

0.19 U

0.29 U

0.22 U

0.15 U

0.13 U

Lab Sample ID: MB 600-79383/4

Matrix: Water

Analyte

Analysis Batch: 79383

Dichlorodifluoromethane

1,1-Dichloropropene

Toluene

cis-1,3-Dichloropropene

4-Methyl-2-pentanone (MIBK)

trans-1,3-Dichloropropene

1,1,2-Trichloroethane

1,3-Dichloropropane

Dibromochloromethane

1,1,1,2-Tetrachloroethane

1.2-Dibromoethane

Chlorobenzene

Ethylbenzene

Xylenes, Total

Bromobenzene

N-Propylbenzene

2-Chlorotoluene

1,2,3-Trichloropropane

1,1,2,2-Tetrachloroethane

Styrene

Bromoform Isopropylbenzene

Tetrachloroethene

2-Hexanone

Client Sample ID: Method Blank

Analyzed

05/16/12 00:54

Prep Type: Total/NA

Dil Fac

Chloromethane	0.18	U	2.0	0.18	ug/L	05/16/12 00:54	1	
Vinyl chloride	0.11	U	2.0	0.11	ug/L	05/16/12 00:54	1	
Bromomethane	0.25	U	2.0	0.25	ug/L	05/16/12 00:54	1	
Chloroethane	0.080	U	2.0	0.080	ug/L	05/16/12 00:54	1	
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L	05/16/12 00:54	1	i
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L	05/16/12 00:54	1	
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L	05/16/12 00:54	1	
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L	05/16/12 00:54	1	
Acetone	0.99	U	5.0	0.99	ug/L	05/16/12 00:54	1	
lodomethane	2.0	U	2.0	2.0	ug/L	05/16/12 00:54	1	
Carbon disulfide	0.24	U	2.0	0.24	ug/L	05/16/12 00:54	1	
Methylene Chloride	0.15	U	5.0	0.15	ug/L	05/16/12 00:54	1	
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L	05/16/12 00:54	1	
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L	05/16/12 00:54	1	
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L	05/16/12 00:54	1	
Benzene	0.080	U	1.0	0.080	ug/L	05/16/12 00:54	1	
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L	05/16/12 00:54	1	
Trichloroethene	0.18	U	1.0	0.18	ug/L	05/16/12 00:54	1	
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L	05/16/12 00:54	1	
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L	05/16/12 00:54	1	
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L	05/16/12 00:54	1	
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L	05/16/12 00:54	1	
Dibromomethane	0.52	U	1.0	0.52	ug/L	05/16/12 00:54	1	
Chloroform	0.13	U	1.0	0.13	ug/L	05/16/12 00:54	1	
Bromodichloromethane	0.16	U	1.0	0.16	ug/L	05/16/12 00:54	1	

1.0

1.0

2.0

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2.0

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1.0

0.21 ug/L

0.18 ug/L

0.45 ug/L

0.15 ug/L

0.21 ug/L

0.28 ug/L

0.13 ug/L

0.22 ug/L

0.35 ug/L

0.15 ug/L

0.18 ug/L

0.12 ug/L

0.18 ug/L

0.11 ug/L

0.26 ug/L

0.070 ug/L

0.19 ug/L

0.18 ug/L

0.19 ug/L

0.29 ug/L

0.22 ug/L

0.15 ug/L

0.13 ug/L

05/16/12 00:54 05/16/12 00:54 05/16/12 00:54 05/16/12 00:54

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05/16/12 00:54

05/16/12 00:54

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

MB MB

мв мв

Lab Sample ID: MB 600-79383/4

Client: Pastor, Behling & Wheeler LLC

Matrix: Water

Analysis Batch: 79383

Client Sample ID: Method Blank **Prep Type: Total/NA**

Client Sample ID: Lab Control Sample

	IVID	IVID							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/16/12 00:54	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/16/12 00:54	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/16/12 00:54	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/16/12 00:54	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/16/12 00:54	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/16/12 00:54	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 00:54	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 00:54	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/16/12 00:54	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 00:54	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/16/12 00:54	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/16/12 00:54	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/16/12 00:54	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139	· · · · · · · · · · · · · · · · · · ·	 	05/16/12 00:54	1
Dibromofluoromethane	80		62 - 130			05/16/12 00:54	1
Toluene-d8 (Surr)	87		70 - 130			05/16/12 00:54	1
1,2-Dichloroethane-d4 (Surr)	78		50 - 134			05/16/12 00:54	1

Lab Sample ID: LCS 600-79383/3

Matrix: Water							Prep Type: Total/NA
Analysis Batch: 79383							
•	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	10.0	30.0	*	ug/L		300	12 - 136
Chloromethane	10.0	13.5		ug/L		135	32 - 151
Vinyl chloride	10.0	11.1		ug/L		111	47 - 146
Bromomethane	10.0	11.4		ug/L		114	52 - 146
Chloroethane	10.0	11.1		ug/L		111	56 - 144
Trichlorofluoromethane	10.0	11.9		ug/L		119	55 - 142
1,1-Dichloroethene	10.0	10.2		ug/L		102	59 - 145
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	70 - 132
Methyl tert-butyl ether	10.0	8.94		ug/L		89	63 - 142
Acetone	20.0	18.0		ug/L		90	28 - 152
Iodomethane	10.0	8.96		ug/L		90	17 _ 197
Carbon disulfide	10.0	10.4		ug/L		104	32 - 177
Methylene Chloride	10.0	9.61		ug/L		96	62 - 134
cis-1,2-Dichloroethene	10.0	9.09		ug/L		91	69 - 129
2-Butanone (MEK)	20.0	17.2		ug/L		86	59 - 133
Carbon tetrachloride	10.0	10.4		ug/L		104	59 - 147
Benzene	10.0	9.61		ug/L		96	69 - 131
1,2-Dichloroethane	10.0	9.77		ug/L		98	66 - 140
Trichloroethene	10.0	9.36		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	10.1		ug/L		101	65 - 142
1,1-Dichloroethane	10.0	9.91		ug/L		99	66 - 126
1,2-Dichloropropane	10.0	9.56		ug/L		96	72 - 125
2,2-Dichloropropane	10.0	9.26		ug/L		93	43 - 169

TestAmerica Job ID: 600-54909-1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79383/3

Matrix: Water

Analysis Batch: 79383

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Analysis Batch: 79383	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Dibromomethane	10.0	9.68	V	ug/L		97	68 - 134
Chloroform	10.0	9.85		ug/L		99	69 - 128
Bromodichloromethane	10.0	9.21		ug/L		92	73 ₋ 130
1,1-Dichloropropene	10.0	9.96		ug/L		100	59 - 134
cis-1,3-Dichloropropene	10.0	9.72		ug/L		97	60 ₋ 135
4-Methyl-2-pentanone (MIBK)	20.0	18.9		ug/L		94	56 - 142
Toluene	10.0	9.69		ug/L		97	67 ₋ 130
trans-1,3-Dichloropropene	10.0	10.1		ug/L		101	63 - 133
1,1,2-Trichloroethane	10.0	9.94		ug/L		99	68 - 130
Tetrachloroethene	10.0	14.2		ug/L		142	61 ₋ 142
1,3-Dichloropropane	10.0	9.57		ug/L		96	62 - 132
2-Hexanone	20.0	19.1		ug/L		95	51 ₋ 130
Dibromochloromethane	10.0	9.27		ug/L		93	58 ₋ 132
1,2-Dibromoethane	10.0	9.28		ug/L		93	68 - 128
Chlorobenzene	10.0	9.22		ug/L		92	60 ₋ 136
1,1,1,2-Tetrachloroethane	10.0	9.37		ug/L		94	57 - 136
Ethylbenzene	10.0	9.37		ug/L		94	68 - 128
Xylenes, Total	30.0	28.9		ug/L		96	68 ₋ 132
Styrene	10.0	9.72		ug/L		97	68 - 133
Bromoform	10.0	8.41		ug/L		84	39 - 149
Isopropylbenzene	10.0	11.2		ug/L		112	79 - 146
Bromobenzene	10.0	9.14		ug/L		91	61 ₋ 134
1,2,3-Trichloropropane	10.0	8.84		ug/L		88	52 - 157
1,1,2,2-Tetrachloroethane	10.0	9.89		ug/L		99	68 ₋ 134
N-Propylbenzene	10.0	9.75		ug/L		97	61 - 137
2-Chlorotoluene	10.0	9.53		ug/L		95	58 - 135
4-Chlorotoluene	10.0	9.69		ug/L		97	64 - 134
1,3,5-Trimethylbenzene	10.0	9.43		ug/L		94	63 - 132
tert-Butylbenzene	10.0	10.1		ug/L		101	67 - 148
4-Isopropyltoluene	10.0	10.4		ug/L		104	63 - 138
1,2,4-Trimethylbenzene	10.0	9.62		ug/L		96	63 - 131
sec-Butylbenzene	10.0	9.90		ug/L		99	61 _ 134
1,3-Dichlorobenzene	10.0	9.49		ug/L		95	71 - 132
1,4-Dichlorobenzene	10.0	9.46		ug/L		95	72 ₋ 131
1,2-Dichlorobenzene	10.0	9.43		ug/L		94	71 - 133
n-Butylbenzene	10.0	9.83		ug/L		98	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	11.6		ug/L		116	43 - 141
1,2,4-Trichlorobenzene	10.0	10.3		ug/L		103	55 - 151
Hexachlorobutadiene	10.0	9.86		ug/L		99	53 - 140
Naphthalene	10.0	10.7		ug/L		107	19 - 195

%Recovery	Qualifier	Limits
100		67 - 139
83		62 - 130
88		70 - 130
79		50 - 134
	100 83 88	83 88

TestAmerica Houston 7/18/2012

QC Sample Results

MQL (Adj)

SDL Unit

D

Prepared

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

MB MB Result Qualifier

Lab Sample ID: MB 600-79394/4

Matrix: Water

Analyte

Bromoform

Isopropylbenzene

N-Propylbenzene

2-Chlorotoluene

1,2,3-Trichloropropane

1,1,2,2-Tetrachloroethane

Bromobenzene

Analysis Batch: 79394

Client Sample ID: Method Blank

Dil Fac

Prep	Type:	Iotai/NA	

Analyzed

=			, . ,				
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L	05/16/12 1:	3:24 1
Chloromethane	0.18	U	2.0	0.18	ug/L	05/16/12 13	3:24 1
Vinyl chloride	0.11	U	2.0	0.11	ug/L	05/16/12 1:	3:24 1
Bromomethane	0.25	U	2.0	0.25	ug/L	05/16/12 1	3:24 1
Chloroethane	0.080	U	2.0	0.080	ug/L	05/16/12 1:	3:24 1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L	05/16/12 1:	3:24 1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L	05/16/12 1:	3:24 1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L	05/16/12 1:	3:24 1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L	05/16/12 1:	3:24 1
Acetone	0.99	U	5.0	0.99	ug/L	05/16/12 1:	3:24 1
Iodomethane	2.0	U	2.0	2.0	ug/L	05/16/12 1:	3:24 1
Carbon disulfide	0.24	U	2.0	0.24	ug/L	05/16/12 1:	3:24 1
Methylene Chloride	0.15	U	5.0	0.15	ug/L	05/16/12 1:	3:24 1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L	05/16/12 1:	3:24 1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L	05/16/12 1:	3:24 1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L	05/16/12 1:	3:24 1
Benzene	0.080	U	1.0	0.080	ug/L	05/16/12 1:	3:24 1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L	05/16/12 1:	3:24 1
Trichloroethene	0.18	U	1.0	0.18	ug/L	05/16/12 1:	3:24 1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L	05/16/12 1:	3:24 1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L	05/16/12 1:	3:24 1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L	05/16/12 1:	3:24 1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L	05/16/12 1:	3:24 1
Dibromomethane	0.52	U	1.0	0.52	ug/L	05/16/12 1:	3:24 1
Chloroform	0.13	U	1.0	0.13	ug/L	05/16/12 1:	3:24 1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L	05/16/12 1:	3:24 1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L	05/16/12 1:	3:24 1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L	05/16/12 1:	3:24 1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L	05/16/12 1:	3:24 1
Toluene	0.15	U	1.0	0.15	ug/L	05/16/12 1:	3:24 1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L	05/16/12 1:	3:24 1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L	05/16/12 1:	3:24 1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L	05/16/12 1:	3:24 1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L	05/16/12 1:	3:24 1
2-Hexanone	0.35	U	2.0	0.35	ug/L	05/16/12 1:	3:24 1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L	05/16/12 1:	3:24 1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L	05/16/12 1:	3:24 1
Chlorobenzene	0.12	U	1.0	0.12	ug/L	05/16/12 1:	3:24 1
1,1,1,2-Tetrachloroethane	0.18	U	1.0		ug/L	05/16/12 1:	3:24 1
Ethylbenzene	0.11	U	1.0	0.11	ug/L	05/16/12 1:	3:24 1
Xylenes, Total	0.26	U	1.0	0.26	ug/L	05/16/12 1:	3:24 1
Styrene	0.070	U	1.0	0.070	ug/L	05/16/12 1:	3:24 1
							Carlos Indeas Indeas Indea

05/16/12 13:24

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1.0

1.0

1.0

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1.0

1.0

0.19 ug/L

0.18 ug/L

0.19 ug/L

0.29 ug/L

0.22 ug/L

0.15 ug/L

0.13 ug/L

0.19 U

0.18 U

0.19 U

0.29 U

0.22 U

0.15 U

0.13 U

Project/Site: R&H Oil

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analysis Batch: 79394

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: MB 600-79394/4

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/16/12 13:24	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/16/12 13:24	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/16/12 13:24	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/16/12 13:24	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/16/12 13:24	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/16/12 13:24	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 13:24	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 13:24	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/16/12 13:24	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 13:24	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/16/12 13:24	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/16/12 13:24	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/16/12 13:24	1

MB MB %Recovery Qualifier Dil Fac Surrogate Limits Prepared Analyzed 4-Bromofluorobenzene 100 67 - 139 05/16/12 13:24 05/16/12 13:24 Dibromofluoromethane 82 62 - 130 Toluene-d8 (Surr) 84 70 - 130 05/16/12 13:24 1,2-Dichloroethane-d4 (Surr) 50 - 134 05/16/12 13:24 80

Lab Sample ID: LCS 600-79394/3

Matrix: Water

Analysis Batch: 79394

Client Sample ID:	: Lab Control Sample
	Prep Type: Total/NA

Analysis Batch. 19394	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	10.0	31.2	*	ug/L		312	12 - 136
Chloromethane	10.0	14.8		ug/L		148	32 - 151
Vinyl chloride	10.0	12.2		ug/L		122	47 - 146
Bromomethane	10.0	12.6		ug/L		126	52 - 146
Chloroethane	10.0	11.6		ug/L		116	56 ₋ 144
Trichlorofluoromethane	10.0	12.4		ug/L		124	55 - 142
1,1-Dichloroethene	10.0	10.4		ug/L		104	59 - 145
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 132
Methyl tert-butyl ether	10.0	9.20		ug/L		92	63 - 142
Acetone	20.0	15.9		ug/L		80	28 - 152
lodomethane	10.0	9.30		ug/L		93	17 _ 197
Carbon disulfide	10.0	10.3		ug/L		103	32 - 177
Methylene Chloride	10.0	10.3		ug/L		103	62 - 134
cis-1,2-Dichloroethene	10.0	9.27		ug/L		93	69 - 129
2-Butanone (MEK)	20.0	15.5		ug/L		77	59 - 133
Carbon tetrachloride	10.0	11.1		ug/L		111	59 ₋ 147
Benzene	10.0	9.45		ug/L		94	69 - 131
1,2-Dichloroethane	10.0	10.2		ug/L		102	66 - 140
Trichloroethene	10.0	9.35		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	10.7		ug/L		107	65 - 142
1,1-Dichloroethane	10.0	10.0		ug/L		100	66 - 126
1,2-Dichloropropane	10.0	9.67		ug/L		97	72 - 125
2,2-Dichloropropane	10.0	11.2		ug/L		112	43 - 169

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Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79394/3

Matrix: Water

Analysis Batch: 79394

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Analysis Batch. 79394	Spike	LCS	LCS				%Rec.	
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	
Dibromomethane	10.0	9.58	72	ug/L		96	68 - 134	_
Chloroform	10.0	9.65		ug/L		96	69 - 128	
Bromodichloromethane	10.0	9.71		ug/L		97	73 - 130	
1,1-Dichloropropene	10.0	9.59		ug/L		96	59 - 134	
cis-1,3-Dichloropropene	10.0	9.95		ug/L		100	60 - 135	
4-Methyl-2-pentanone (MIBK)	20.0	19.3		ug/L		97	56 - 142	
Toluene	10.0	9.15		ug/L		91	67 - 130	
trans-1,3-Dichloropropene	10.0	10.6		ug/L		106	63 - 133	
1,1,2-Trichloroethane	10.0	9.57		ug/L		96	68 - 130	
Tetrachloroethene	10.0	9.34		ug/L		93	61 - 142	
1,3-Dichloropropane	10.0	9.45		ug/L		95	62 - 132	
2-Hexanone	20.0	18.7		ug/L		94	51 - 130	
Dibromochloromethane	10.0	9.83		ug/L		98	58 - 132	
1,2-Dibromoethane	10.0	9.56		ug/L		96	68 - 128	
Chlorobenzene	10.0	9.10		ug/L		91	60 - 136	
1,1,1,2-Tetrachloroethane	10.0	9.55		ug/L		96	57 - 136	
Ethylbenzene	10.0	9.08		ug/L		91	68 - 128	
Xylenes, Total	30.0	27.5		ug/L		92	68 - 132	
Styrene	10.0	9.60		ug/L		96	68 - 133	
Bromoform	10.0	9.75		ug/L		98	39 - 149	
Isopropylbenzene	10.0	10.7		ug/L		107	79 - 146	
Bromobenzene	10.0	8.83		ug/L		88	61 - 134	
1,2,3-Trichloropropane	10.0	9.20		ug/L		92	52 - 157	
1,1,2,2-Tetrachloroethane	10.0	9.94		ug/L		99	68 - 134	
N-Propylbenzene	10.0	9.29		ug/L		93	61 - 137	
2-Chlorotoluene	10.0	9.01		ug/L		90	58 - 135	
4-Chlorotoluene	10.0	9.38		ug/L		94	64 - 134	
1,3,5-Trimethylbenzene	10.0	9.17		ug/L		92	63 - 132	
tert-Butylbenzene	10.0	9.96		ug/L		100	67 - 148	
4-Isopropyltoluene	10.0	9.93		ug/L		99	63 - 138	
1,2,4-Trimethylbenzene	10.0	9.18		ug/L		92	63 - 131	
sec-Butylbenzene	10.0	9.32		ug/L		93	61 - 134	
1,3-Dichlorobenzene	10.0	9.30		ug/L		93	71 - 132	
1,4-Dichlorobenzene	10.0	9.09		ug/L		91	72 - 131	
1,2-Dichlorobenzene	10.0	9.08		ug/L		91	71 - 133	
n-Butylbenzene	10.0	9.60		ug/L		96	62 - 132	
1,2-Dibromo-3-Chloropropane	10.0	13.0		ug/L		130	43 - 141	
1,2,4-Trichlorobenzene	10.0	9.96		ug/L		100	55 ₋ 151	
Hexachlorobutadiene	10.0	9.11		ug/L		91	53 - 140	
Naphthalene	10.0	10.4		ug/L		104	19 - 195	

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	100	-	67 - 139
Dibromofluoromethane	85		62 - 130
Toluene-d8 (Surr)	85		70 - 130
1,2-Dichloroethane-d4 (Surr)	80		50 - 134

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Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

Lab Sample ID: 600-54909-8 MS

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: MW-7
Prep Type: Total/NA

Analysis Batch: 79394	Comple	Comple	Cnika	Me	MS				%Rec.	
Analyte	•	Sample Qualifier	Spike Added		Qualifier	Unit	D	%Rec	%Rec. Limits	
Dichlorodifluoromethane	0.12		10.0	23.1		ug/L		231	60 ₋ 140	
Chloromethane	0.12		10.0	11.8	'	ug/L		118	60 ₋ 140	
	0.16		10.0	9.97		=		100		
Vinyl chloride						ug/L			60 - 140	
Bromomethane	0.25		10.0	10.6		ug/L		106	60 - 140	
Chloroethane	0.080		10.0	10.7		ug/L		107	60 - 140	
Trichlorofluoromethane	0.080		10.0	12.5		ug/L		125	60 - 140	
1,1-Dichloroethene	0.19		10.0	10.6		ug/L		106	22 - 143	
trans-1,2-Dichloroethene	0.090	U	10.0	10.2		ug/L		102	60 - 140	
Methyl tert-butyl ether	1.4		10.0	10.4		ug/L		90	60 - 140	
Acetone	0.99		20.0	16.4		ug/L		82	60 - 140	
Iodomethane	2.0		10.0	8.77		ug/L		88	60 - 140	
Carbon disulfide	0.24	U	10.0	10.4		ug/L		104	60 - 140	
Methylene Chloride	0.15	U	10.0	9.02		ug/L		90	60 - 140	
cis-1,2-Dichloroethene	0.060	U	10.0	9.34		ug/L		93	60 - 140	
2-Butanone (MEK)	0.76	U	20.0	18.7		ug/L		94	60 - 140	
Carbon tetrachloride	0.15	U	10.0	11.2		ug/L		112	60 - 140	
Benzene	0.14	J	10.0	9.88		ug/L		97	65 _ 125	
1,2-Dichloroethane	0.14	U	10.0	10.3		ug/L		103	60 - 140	
Trichloroethene	0.18	U	10.0	9.75		ug/L		98	56 - 118	
1,1,1-Trichloroethane	0.15	U	10.0	10.6		ug/L		106	60 - 140	
1,1-Dichloroethane	0.11		10.0	9.91		ug/L		99	60 - 140	
1,2-Dichloropropane	0.16		10.0	10.0		ug/L		100	60 - 140	
2,2-Dichloropropane	0.13		10.0	10.7		ug/L		107	60 - 140	
Dibromomethane	0.52		10.0	10.7		ug/L		107	60 - 140	
Chloroform	0.13		10.0	9.71		ug/L		97	60 - 140	
Bromodichloromethane	0.15		10.0	9.47		ug/L		95	60 ₋ 140	
1,1-Dichloropropene	0.10		10.0	10.0		ug/L		100	60 ₋ 140	
cis-1,3-Dichloropropene	0.18		10.0	9.77		ug/L		98	60 - 140	
4-Methyl-2-pentanone (MIBK)	0.45		20.0	19.3		ug/L		97	60 ₋ 140	
Toluene	0.15		10.0	9.51		ug/L		95	76 - 125	
trans-1,3-Dichloropropene	0.21		10.0	10.9		ug/L 		109	60 - 140	
1,1,2-Trichloroethane	0.28		10.0	9.30		ug/L		93	60 - 140	
Tetrachloroethene	0.13		10.0	9.80		ug/L		98	60 - 140	
1,3-Dichloropropane	0.22		10.0	9.59		ug/L		96	60 - 140	
2-Hexanone	0.35		20.0	19.3		ug/L		97	60 - 140	
Dibromochloromethane	0.15		10.0	9.76		ug/L		98	60 - 140	
1,2-Dibromoethane	0.18	U	10.0	9.93		ug/L		99	60 - 140	
Chlorobenzene	0.12	U	10.0	9.58		ug/L		96	72 - 122	
1,1,1,2-Tetrachloroethane	0.18	U	10.0	9.80		ug/L		98	60 - 140	
Ethylbenzene	0.11	U	10.0	9.45		ug/L		94	60 - 140	
Xylenes, Total	0.26	U	30.0	29.0		ug/L		97	60 - 140	
Styrene	0.070	U	10.0	9.87		ug/L		99	60 - 140	
Bromoform	0.19	U	10.0	9.52		ug/L		95	60 - 140	
Isopropylbenzene	0.18	U	10.0	11.3		ug/L		113	60 _ 140	
Bromobenzene	0.19		10.0	9.40		ug/L		94	60 - 140	
1,2,3-Trichloropropane	0.29		10.0	9.39		ug/L		94	60 - 140	
1,1,2,2-Tetrachloroethane	0.22		10.0	10.1		ug/L		101	60 - 140	
N-Propylbenzene	0.22		10.0	9.99		ug/L		100	60 ₋ 140	
2-Chlorotoluene	0.13		10.0	9.51		ug/L ug/L		95	60 ₋ 140	caracter.

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-54909-8 MS Client Sample ID: MW-7 **Matrix: Water Prep Type: Total/NA**

Analysis Batch: 79394

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
4-Chlorotoluene	0.14	U	10.0	9.86		ug/L		99	60 - 140	
1,3,5-Trimethylbenzene	0.10	U	10.0	9.51		ug/L		95	60 - 140	
tert-Butylbenzene	0.080	U	10.0	10.5		ug/L		105	60 - 140	
4-Isopropyltoluene	0.10	U	10.0	10.4		ug/L		104	60 - 140	
1,2,4-Trimethylbenzene	0.14	U	10.0	9.58		ug/L		96	60 - 140	
sec-Butylbenzene	0.12	U	10.0	10.1		ug/L		101	60 - 140	
1,3-Dichlorobenzene	0.13	U	10.0	9.70		ug/L		97	60 - 140	
1,4-Dichlorobenzene	0.11	U	10.0	9.60		ug/L		96	60 _ 140	
1,2-Dichlorobenzene	0.10	U	10.0	9.25		ug/L		93	60 - 140	
n-Butylbenzene	0.16	U	10.0	10.1		ug/L		101	60 - 140	
1,2-Dibromo-3-Chloropropane	0.81	U	10.0	13.2		ug/L		132	60 - 140	
1,2,4-Trichlorobenzene	0.31	U	10.0	9.35		ug/L		93	60 - 140	
Hexachlorobutadiene	0.17	U	10.0	9.57		ug/L		96	60 - 140	
Naphthalene	0.32	U	10.0	8.32		ug/L		83	60 - 140	

MS MS %Recovery Qualifier Limits Surrogate 4-Bromofluorobenzene 101 67 - 139 Dibromofluoromethane 62 - 130 85 Toluene-d8 (Surr) 85 70 - 130 1,2-Dichloroethane-d4 (Surr) 50 - 134 82

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

Analysis Batch: 79394									•	•	
Allalysis Datcil. 13034	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dichlorodifluoromethane	0.12	U *	10.0	23.5	F	ug/L		235	60 - 140	2	30
Chloromethane	0.18	U	10.0	11.6		ug/L		116	60 - 140	1	30
Vinyl chloride	0.11	U	10.0	10.4		ug/L		104	60 - 140	4	30
Bromomethane	0.25	U	10.0	11.4		ug/L		114	60 - 140	7	30
Chloroethane	0.080	U	10.0	11.0		ug/L		110	60 - 140	2	30
Trichlorofluoromethane	0.080	U	10.0	12.6		ug/L		126	60 - 140	1	30
1,1-Dichloroethene	0.19	U	10.0	10.7		ug/L		107	22 - 143	1	30
trans-1,2-Dichloroethene	0.090	U	10.0	10.8		ug/L		108	60 - 140	5	30
Methyl tert-butyl ether	1.4		10.0	10.8		ug/L		94	60 - 140	4	30
Acetone	0.99	U	20.0	17.3		ug/L		87	60 - 140	5	30
lodomethane	2.0	U	10.0	8.90		ug/L		89	60 - 140	2	30
Carbon disulfide	0.24	U	10.0	10.6		ug/L		106	60 - 140	2	30
Methylene Chloride	0.15	U	10.0	9.36		ug/L		94	60 - 140	4	30
cis-1,2-Dichloroethene	0.060	U	10.0	9.44		ug/L		94	60 - 140	1	30
2-Butanone (MEK)	0.76	U	20.0	17.7		ug/L		88	60 - 140	6	30
Carbon tetrachloride	0.15	U	10.0	11.7		ug/L		117	60 - 140	5	30
Benzene	0.14	J	10.0	9.94		ug/L		98	65 - 125	1	30
1,2-Dichloroethane	0.14	U	10.0	10.2		ug/L		102	60 - 140	1	30
Trichloroethene	0.18	U	10.0	9.69		ug/L		97	56 - 118	1	30
1,1,1-Trichloroethane	0.15	U	10.0	11.1		ug/L		111	60 - 140	5	30
1,1-Dichloroethane	0.11	U	10.0	10.3		ug/L		103	60 - 140	4	30
1,2-Dichloropropane	0.16	U	10.0	9.95		ug/L		100	60 - 140	1	30
2,2-Dichloropropane	0.13	U	10.0	11.8		ug/L		118	60 - 140	10	30

Client Sample ID: MW-7

Prep Type: Total/NA

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

Analysis Batch: 79394

Client Sample ID: MW-7 **Prep Type: Total/NA**

Analysis batch. 13554	Sample	Sample	Spike Added	Result	D MSD				%Rec.		RPD
Analyte		Qualifier			Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dibromomethane	0.52	U	10.0	10.5		ug/L		105	60 - 140	2	30
Chloroform	0.13	U	10.0	10.1		ug/L		101	60 - 140	4	30
Bromodichloromethane	0.16	U	10.0	10.3		ug/L		103	60 - 140	8	30
1,1-Dichloropropene	0.21	U	10.0	10.2		ug/L		102	60 - 140	2	30
cis-1,3-Dichloropropene	0.18	U	10.0	10.5		ug/L		105	60 - 140	7	30
4-Methyl-2-pentanone (MIBK)	0.45	U	20.0	20.2		ug/L		101	60 - 140	4	30
Toluene	0.15	U	10.0	9.81		ug/L		98	76 - 125	3	30
trans-1,3-Dichloropropene	0.21	U	10.0	11.8		ug/L		118	60 - 140	8	30
1,1,2-Trichloroethane	0.28	U	10.0	10.5		ug/L		105	60 - 140	13	30
Tetrachloroethene	0.13	U	10.0	9.98		ug/L		100	60 - 140	2	30
1,3-Dichloropropane	0.22	U	10.0	10.1		ug/L		101	60 - 140	6	30
2-Hexanone	0.35	U	20.0	19.8		ug/L		99	60 - 140	2	30
Dibromochloromethane	0.15	U	10.0	10.4		ug/L		104	60 - 140	6	30
1,2-Dibromoethane	0.18	U	10.0	10.2		ug/L		102	60 - 140	3	30
Chlorobenzene	0.12	U	10.0	9.71		ug/L		97	72 - 122	1	30
1,1,1,2-Tetrachloroethane	0.18	U	10.0	10.3		ug/L		103	60 - 140	5	30
Ethylbenzene	0.11	Ü	10.0	9.73		ug/L		97	60 - 140	3	30
Xylenes, Total	0.26	U	30.0	29.8		ug/L		99	60 - 140	3	30
Styrene	0.070	U	10.0	10.2		ug/L		102	60 - 140	4	30
Bromoform	0.19	U	10.0	10.2		ug/L		102	60 - 140	7	30
Isopropylbenzene	0.18	U	10.0	11.5		ug/L		115	60 - 140	2	30
Bromobenzene	0.19	U	10.0	9.43		ug/L		94	60 - 140	0	30
1,2,3-Trichloropropane	0.29	U	10.0	9.98		ug/L		100	60 - 140	6	30
1,1,2,2-Tetrachloroethane	0.22	U	10.0	10.3		ug/L		103	60 - 140	1	30
N-Propylbenzene	0.15	U	10.0	9.98		ug/L		100	60 - 140	0	30
2-Chlorotoluene	0.13	Ü	10.0	9.57		ug/L		96	60 - 140	1	30
4-Chlorotoluene	0.14	U	10.0	9.88		ug/L		99	60 - 140	0	30
1,3,5-Trimethylbenzene	0.10	U	10.0	9.71		ug/L		97	60 - 140	2	30
tert-Butylbenzene	0.080	U	10.0	10.7		ug/L		107	60 - 140	2	30
4-Isopropyltoluene	0.10	U	10.0	10.6		ug/L		106	60 - 140	2	30
1,2,4-Trimethylbenzene	0.14	U	10.0	9.70		ug/L		97	60 - 140	1	30
sec-Butylbenzene	0.12	U	10.0	10.2		ug/L		102	60 - 140	1	30
1,3-Dichlorobenzene	0.13	U	10.0	9.76		ug/L		98	60 - 140	1	30
1,4-Dichlorobenzene	0.11	U	10.0	9.71		ug/L		97	60 - 140	1	30
1,2-Dichlorobenzene	0.10	U	10.0	9.53		ug/L		95	60 - 140	3	30
n-Butylbenzene	0.16	U	10.0	10.4		ug/L		104	60 - 140	3	30
1,2-Dibromo-3-Chloropropane	0.81	U	10.0	13.4		ug/L		134	60 - 140	2	30
1,2,4-Trichlorobenzene	0.31	Ü	10.0	10.4		ug/L		104	60 - 140	11	30
Hexachlorobutadiene	0.17	U	10.0	10.5		ug/L		105	60 - 140	9	30
Naphthalene	0.32	11	10.0	11.0		ug/L		110	60 - 140	27	30

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	98	-	67 - 139
Dibromofluoromethane	86		62 - 130
Toluene-d8 (Surr)	85		70 - 130
1,2-Dichloroethane-d4 (Surr)	78		50 ₋ 134

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Lab Sample ID: 600-54909-3 MS

Client Sample ID: MW-5

Analysis Batch: 79279	Sample	Sample	Spike	ме	MS				%Rec.	
Analyte	•	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	
Dichlorodifluoromethane - DL	6.0		500	1610		ug/L		321	60 - 140	
Chloromethane - DL	9.0		500	711		ug/L		142	60 - 140	
Vinyl chloride - DL	5.5		500	605	•	ug/L		121	60 - 140	
Bromomethane - DL	13		500	623		ug/L		125	60 - 140	
Chloroethane - DL	4.0		500	612		ug/L		122	60 - 140	
Trichlorofluoromethane - DL	4.0		500	695		ug/L		139	60 - 140	
1,1-Dichloroethene - DL	9.5		500	568		ug/L		114	22 - 143	
trans-1,2-Dichloroethene - DL	4.5		500	538		ug/L		108	60 - 140	
Methyl tert-butyl ether - DL	460		500	939		ug/L		96	60 - 140	
Acetone - DL	50		1000	973		ug/L		97	60 - 140	
Iodomethane - DL	100		500	465		ug/L		93	60 - 140	
Carbon disulfide - DL	12		500	546		ug/L		109	60 - 140	
Methylene Chloride - DL	7.5		500	490		ug/L		98	60 - 140	
cis-1,2-Dichloroethene - DL	3.0		500	476		ug/L		95	60 - 140	
2-Butanone (MEK) - DL	38		1000	858		ug/L		86	60 - 140	
Carbon tetrachloride - DL	7.5		500	563		ug/L ug/L		113	60 - 140	
Benzene - DL	190		500	699		ug/L		101	65 - 125	
1,2-Dichloroethane - DL	7.0		500	544		=		109	60 - 140	
Trichloroethene - DL	9.0		500	498		ug/L		109	56 - 118	
1,1,1-Trichloroethane - DL	7.5		500	545		ug/L ug/L		100	60 - 140	
1,1-Dichloroethane - DL	5.5		500	531		ug/L		109	60 - 140	
1,2-Dichloropropane - DL	8.0		500	522				104	60 - 140	
2,2-Dichloropropane - DL	6.5		500	470		ug/L ug/L		94	60 - 140	
Dibromomethane - DL	26		500	527		ug/L ug/L		105	60 - 140	
Chloroform - DL	6.5		500	519				103	60 - 140	
Bromodichloromethane - DL	8.0		500	501		ug/L ug/L		104	60 - 140	
1,1-Dichloropropene - DL	11		500	536		ug/L ug/L		107	60 - 140	
cis-1,3-Dichloropropene - DL	9.0		500	511		ug/L		102	60 - 140	
	23		1000	1020		ug/L		102	60 - 140	
4-Methyl-2-pentanone (MIBK) - DL	25		1000	1020		ug/L		102	00 - 140	
Toluene - DL	7.5		500	517		ug/L		103	76 ₋ 125	
trans-1,3-Dichloropropene - DL	11		500	546		ug/L		109	60 - 140	
1,1,2-Trichloroethane - DL	14		500	530		ug/L		106	60 - 140	
Tetrachloroethene - DL	6.5		500	529		ug/L		106	60 _ 140	
1,3-Dichloropropane - DL	11		500	486		ug/L		97	60 - 140	
2-Hexanone - DL	18		1000	916		ug/L		92	60 _ 140	
Dibromochloromethane - DL	7.5		500	508		ug/L		102	60 - 140	
1,2-Dibromoethane - DL	9.0		500	508		ug/L		102	60 _ 140	
Chlorobenzene - DL	6.0		500	499		ug/L		100	72 ₋ 122	
1,1,1,2-Tetrachloroethane - DL	9.0		500	509		ug/L		102	60 - 140	
Ethylbenzene - DL	5.7		500	521		ug/L		103	60 _ 140	
Xylenes, Total - DL	13		1500	1570		ug/L		104	60 - 140	
Styrene - DL	3.5		500	524		ug/L		105	60 _ 140	
Bromoform - DL	9.5		500	494		ug/L		99	60 - 140	
Isopropylbenzene - DL	28		500	624		ug/L		119	60 _ 140	
Bromobenzene - DL	9.5		500	478		ug/L		96	60 - 140	
1,2,3-Trichloropropane - DL	15		500	495		ug/L		99	60 - 140	
1,1,2,2-Tetrachloroethane - DL	11		500	526		ug/L		105	60 - 140	
N-Propylbenzene - DL	33		500	569		ug/L		107	60 - 140	
2-Chlorotoluene - DL	6.5		500	500		ug/L		100	60 - 140	

Project/Site: R&H Oil

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Lab Sample ID: 600-54909-3 MS

Client: Pastor, Behling & Wheeler LLC

Matrix: Water

Analysis Batch: 79279

Client Sample ID: MW-5 Prep Type: Total/NA

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
4-Chlorotoluene - DL	7.0	-	500	519	7	ug/L		104	60 - 140	
1,3,5-Trimethylbenzene - DL	5.0		500	503		ug/L		101	60 _ 140	
tert-Butylbenzene - DL	4.0		500	558		ug/L		112	60 - 140	
4-Isopropyltoluene - DL	5.0		500	556		ug/L		111	60 - 140	
1,2,4-Trimethylbenzene - DL	7.0		500	513		ug/L		103	60 _ 140	
sec-Butylbenzene - DL	6.0		500	533		ug/L		107	60 - 140	
1,3-Dichlorobenzene - DL	6.5		500	495		ug/L		99	60 _ 140	
1,4-Dichlorobenzene - DL	5.5		500	493		ug/L		99	60 _ 140	
1,2-Dichlorobenzene - DL	5.0		500	492		ug/L		98	60 - 140	
n-Butylbenzene - DL	12		500	544		ug/L		107	60 _ 140	
1,2-Dibromo-3-Chloropropane -	41		500	609		ug/L		122	60 _ 140	
DL										
1,2,4-Trichlorobenzene - DL	48		500	513		ug/L		93	60 - 140	
Hexachlorobutadiene - DL	8.5		500	513		ug/L		103	60 _ 140	
Naphthalene - DL	110		500	518		ug/L		81	60 - 140	

Spike

Added

MS MS

Sample Sample

190

7.0

9.0

7.5

5.5

8.0

Result Qualifier

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene - DL	100	7 	67 - 139
Dibromofluoromethane - DL	84		62 - 130
Toluene-d8 (Surr) - DL	88		70 - 130
1,2-Dichloroethane-d4 (Surr) -	78		50 - 134
DI			

Lab Sample ID: 600-54909-3 MSD

Matrix: Water

Benzene - DL

1,2-Dichloroethane - DL

1,1,1-Trichloroethane - DL

1,1-Dichloroethane - DL

1,2-Dichloropropane - DL

Trichloroethene - DL

Analysis Batch: 79279

Dichlorodifluoromethane - DL	6.0	500	1490 F	ug/L	298	60 - 140	7	30
Chloromethane - DL	9.0	500	632	ug/L	126	60 - 140	12	30
Vinyl chloride - DL	5.5	500	536	ug/L	107	60 - 140	12	30
Bromomethane - DL	13	500	561	ug/L	112	60 _ 140	10	30
Chloroethane - DL	4.0	500	541	ug/L	108	60 - 140	12	30
Trichlorofluoromethane - DL	4.0	500	599	ug/L	120	60 - 140	15	30
1,1-Dichloroethene - DL	9.5	500	513	ug/L	103	22 - 143	10	30
trans-1,2-Dichloroethene - DL	4.5	500	490	ug/L	98	60 - 140	9	30
Methyl tert-butyl ether - DL	460	500	867	ug/L	82	60 - 140	8	30
Acetone - DL	50	1000	938	ug/L	94	60 - 140	4	30
lodomethane - DL	100	500	421	ug/L	84	60 - 140	10	30
Carbon disulfide - DL	12	500	486	ug/L	97	60 - 140	12	30
Methylene Chloride - DL	7.5	500	452	ug/L	90	60 - 140	8	30
cis-1,2-Dichloroethene - DL	3.0	500	427	ug/L	85	60 - 140	11	30
2-Butanone (MEK) - DL	38	1000	744	ug/L	74	60 - 140	14	30
Carbon tetrachloride - DL	7.5	500	548	ug/L	110	60 - 140	3	30

662

468

442

506

482

470

MSD MSD

Result Qualifier

Unit

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

TestAmerica Houston

5

15

12

7

10

11

30

30

30

30

30

30

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500

500

500

500

500

500

RPD

Limit

Client Sample ID: MW-5

%Rec.

Limits

%Rec

94

94

88

101

96

65 - 125

60 - 140

56 - 118

60 - 140

60 - 140

60 - 140

Prep Type: Total/NA

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Lab Sample ID: 600-54909-3 MSD

Matrix: Water

Analysis Batch: 79279

Client Sample ID: MW-5 Prep Type: Total/NA

Analysis Batch: 79279	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyto	-	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Analyte 2,2-Dichloropropane - DL	6.5		500	455	Qualifier	2 /2		91	60 ₋ 140	3	30
						ug/L					
Dibromomethane - DL	26		500	471		ug/L		94	60 - 140	11	30
Chloroform - DL	6.5		500	446		ug/L		89	60 - 140	15	30
Bromodichloromethane - DL	8.0		500	463		ug/L		93	60 - 140	8	30
1,1-Dichloropropene - DL	11		500	466		ug/L		93	60 - 140	14	30
cis-1,3-Dichloropropene - DL	9.0		500	454		ug/L		91	60 - 140	12	30
4-Methyl-2-pentanone (MIBK) -	23		1000	845		ug/L		85	60 - 140	18	30
DL Talvana DI	7.5		500	440		//		00	70 405	40	20
Toluene - DL	7.5		500	440		ug/L		88	76 - 125	16	30
trans-1,3-Dichloropropene - DL	11		500	514		ug/L		103	60 - 140	6	30
1,1,2-Trichloroethane - DL	14		500	430		ug/L		86	60 - 140	21	30
Tetrachloroethene - DL	6.5		500	465		ug/L		93	60 - 140	13	30
1,3-Dichloropropane - DL	11		500	427		ug/L		85	60 - 140	13	30
2-Hexanone - DL	18		1000	883		ug/L		88	60 - 140	4	30
Dibromochloromethane - DL	7.5		500	467		ug/L		93	60 - 140	8	30
1,2-Dibromoethane - DL	9.0		500	450		ug/L		90	60 - 140	12	30
Chlorobenzene - DL	6.0		500	421		ug/L		84	72 - 122	17	30
1,1,1,2-Tetrachloroethane - DL	9.0		500	457		ug/L		91	60 - 140	11	30
Ethylbenzene - DL	5.7		500	439		ug/L		87	60 - 140	17	30
Xylenes, Total - DL	13		1500	1340		ug/L		89	60 - 140	16	30
Styrene - DL	3.5		500	457		ug/L		91	60 - 140	14	30
Bromoform - DL	9.5		500	469		ug/L		94	60 - 140	5	30
Isopropylbenzene - DL	28		500	556		ug/L		106	60 - 140	11	30
Bromobenzene - DL	9.5		500	415		ug/L		83	60 - 140	14	30
1,2,3-Trichloropropane - DL	15		500	425		ug/L		85	60 - 140	15	30
1,1,2,2-Tetrachloroethane - DL	11		500	455		ug/L		91	60 - 140	14	30
N-Propylbenzene - DL	33		500	494		ug/L		92	60 - 140	14	30
2-Chlorotoluene - DL				437				87	60 - 140	13	30
	6.5		500 500	447		ug/L					
4-Chlorotoluene - DL	7.0					ug/L		89	60 ₋ 140	15	30
1,3,5-Trimethylbenzene - DL	5.0		500	438		ug/L		88	60 - 140	14	30
tert-Butylbenzene - DL	4.0		500	484		ug/L		97	60 - 140	14	30
4-Isopropyltoluene - DL	5.0		500	478		ug/L		96	60 - 140	15	30
1,2,4-Trimethylbenzene - DL	7.0		500	441		ug/L		88	60 - 140	15	30
sec-Butylbenzene - DL	6.0		500	463		ug/L		93	60 - 140	14	30
1,3-Dichlorobenzene - DL	6.5		500	442		ug/L		88	60 - 140	11	30
1,4-Dichlorobenzene - DL	5.5		500	433		ug/L		87	60 - 140	13	30
1,2-Dichlorobenzene - DL	5.0		500	433		ug/L		87	60 - 140	13	30
n-Butylbenzene - DL	12		500	469		ug/L		91	60 - 140	15	30
1,2-Dibromo-3-Chloropropane -	41		500	643		ug/L		129	60 - 140	5	30
DL											
1,2,4-Trichlorobenzene - DL	48		500	505		ug/L		91	60 - 140	1	30
Hexachlorobutadiene - DL	8.5		500	492		ug/L		98	60 - 140	4	30
Naphthalene - DL	110		500	561		ug/L		90	60 - 140	8	30

/ISD	MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene - DL	97) <u></u>	67 - 139
Dibromofluoromethane - DL	84		62 - 130
Toluene-d8 (Surr) - DL	86		70 - 130
1,2-Dichloroethane-d4 (Surr) -	78		50 - 134

TestAmerica Houston 7/18/2012

Client: Pastor, Behling & Wheeler LLC

Lab Sample ID: MB 600-79421/1-A

Project/Site: R&H Oil

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Client Sample ID: Method Blank **Prep Type: Total/NA**

Analysis Batch: 79549								Prep Batch: 79421	
Analysis		MB	MOL (Adi)	en.	11		Duamawad	Amalumad	Dil Fee
Analyte Aniline	0.080	Qualifier	MQL (Adj) 1.5		Unit ug/L	D	Prepared 05/16/12 15:10	Analyzed 05/17/12 18:10	Dil Fac
Phenol	0.040		1.5	0.040	-		05/16/12 15:10	05/17/12 18:10	1
					ug/L		05/16/12 15:10		1
Bis(2-chloroethyl)ether	0.15		1.5		ug/L			05/17/12 18:10	
2-Chlorophenol	0.13		2.0		ug/L		05/16/12 15:10	05/17/12 18:10	1
Benzyl alcohol	0.17		5.5	0.17			05/16/12 15:10	05/17/12 18:10	1
Bis(2-chloroisopropyl) ether	0.40		1.5		ug/L		05/16/12 15:10	05/17/12 18:10	1
3 & 4 Methylphenol	0.20		1.0		ug/L		05/16/12 15:10	05/17/12 18:10	1
N-Nitrosodi-n-propylamine	0.10		2.5	0.10			05/16/12 15:10	05/17/12 18:10	1
Hexachloroethane	0.10		2.0		ug/L		05/16/12 15:10	05/17/12 18:10	1
Nitrobenzene	0.11		1.5		ug/L		05/16/12 15:10	05/17/12 18:10	1
Isophorone	0.11		1.5		ug/L		05/16/12 15:10	05/17/12 18:10	1
2-Nitrophenol	0.22		1.0	0.22	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,4-Dimethylphenol	0.31		2.5		ug/L		05/16/12 15:10	05/17/12 18:10	1
Bis(2-chloroethoxy)methane	0.13		1.5	0.13			05/16/12 15:10	05/17/12 18:10	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/17/12 18:10	1
4-Chloroaniline	0.21	U	1.0	0.21	ug/L		05/16/12 15:10	05/17/12 18:10	1
4-Chloro-3-methylphenol	0.17	U	1.0	0.17	ug/L		05/16/12 15:10	05/17/12 18:10	1
2-Methylnaphthalene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/17/12 18:10	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/17/12 18:10	1
2-Chloronaphthalene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/17/12 18:10	1
Dimethyl phthalate	0.070	U	2.5	0.070	ug/L		05/16/12 15:10	05/17/12 18:10	1
Acenaphthylene	0.060	U	1.0	0.060	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,6-Dinitrotoluene	0.080	U	1.0	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/17/12 18:10	1
Acenaphthene	0.080	U	1.0	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,4-Dinitrophenol	0.39	U	5.0	0.39	ug/L		05/16/12 15:10	05/17/12 18:10	1
4-Nitrophenol	0.56	U	2.5	0.56	ug/L		05/16/12 15:10	05/17/12 18:10	1
Dibenzofuran	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/17/12 18:10	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/16/12 15:10	05/17/12 18:10	1
4-Chlorophenyl phenyl ether	0.10	U	1.5		ug/L		05/16/12 15:10	05/17/12 18:10	1
Fluorene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/17/12 18:10	1
4-Nitroaniline	0.25	U	2.5	0.25			05/16/12 15:10	05/17/12 18:10	1
4,6-Dinitro-2-methylphenol	0.83		2.5		ug/L		05/16/12 15:10	05/17/12 18:10	1
4-Bromophenyl phenyl ether	0.10		1.5		ug/L		05/16/12 15:10	05/17/12 18:10	1
Hexachlorobenzene	0.11		1.5		ug/L		05/16/12 15:10	05/17/12 18:10	1
Pentachlorophenol	0.61		2.5		ug/L		05/16/12 15:10	05/17/12 18:10	1
Phenanthrene	0.060		1.5	0.060			05/16/12 15:10	05/17/12 18:10	1
Anthracene	0.050		1.0	0.050			05/16/12 15:10	05/17/12 18:10	1
Di-n-butyl phthalate	0.030		2.5		ug/L		05/16/12 15:10	05/17/12 18:10	
Fluoranthene	0.070		2.5	0.070			05/16/12 15:10	05/17/12 18:10	1
Pyrene	0.070		2.0		ug/L ug/L		05/16/12 15:10	05/17/12 18:10	1
	0.11								1
Butyl benzyl phthalate			2.5	0.12			05/16/12 15:10	05/17/12 18:10	
3,3'-Dichlorobenzidine	0.18		10		ug/L		05/16/12 15:10	05/17/12 18:10	1
Benzo[a]anthracene	0.080		2.0	0.080			05/16/12 15:10	05/17/12 18:10	1
Bis(2-ethylhexyl) phthalate	0.37	U	2.5	0.37	ug/L		05/16/12 15:10	05/17/12 18:10	1

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-79421/1-A

Matrix: Water

Analysis Batch: 79549

Client Sample ID: Method Blank **Prep Type: Total/NA**

Prep Batch: 79421

_	МВ	МВ						•	
Analyte		Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
Di-n-octyl phthalate	0.16	U	5.0	0.16	ug/L		05/16/12 15:10	05/17/12 18:10	1
Benzo[b]fluoranthene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/17/12 18:10	1
Benzo[k]fluoranthene	0.090	U	2.0	0.090	ug/L		05/16/12 15:10	05/17/12 18:10	1
Benzo[a]pyrene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
Indeno[1,2,3-cd]pyrene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/17/12 18:10	1
Dibenz(a,h)anthracene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
Benzo[g,h,i]perylene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	25		10 - 94	05/16/12 15:10	05/17/12 18:10	1
2,4,6-Tribromophenol	79		10 - 123	05/16/12 15:10	05/17/12 18:10	1
2-Fluorobiphenyl	98		43 - 116	05/16/12 15:10	05/17/12 18:10	1
2-Fluorophenol	43		10 - 100	05/16/12 15:10	05/17/12 18:10	1
Nitrobenzene-d5	96		35 - 114	05/16/12 15:10	05/17/12 18:10	1
Terphenyl-d14	93		33 - 141	05/16/12 15:10	05/17/12 18:10	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Lab Sample ID: LCS 600-79421/2-A

Matrix: Water

Analysis Batch: 79549							Prep Batch: 7942
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Aniline	10.0	5.78	-	ug/L		58	13 - 100
Phenol	10.0	2.92		ug/L		29	11 - 112
Bis(2-chloroethyl)ether	10.0	9.33		ug/L		93	40 - 112
2-Chlorophenol	10.0	9.08		ug/L		91	23 - 134
Benzyl alcohol	10.0	7.02		ug/L		70	39 ₋ 115
Bis(2-chloroisopropyl) ether	10.0	9.72		ug/L		97	41 - 111
3 & 4 Methylphenol	10.0	6.60		ug/L		66	27 ₋ 113
N-Nitrosodi-n-propylamine	10.0	9.84		ug/L		98	39 - 124
Hexachloroethane	10.0	9.39		ug/L		94	43 - 118
Nitrobenzene	10.0	10.2		ug/L		102	42 - 119
Isophorone	10.0	9.56		ug/L		96	42 - 116
2-Nitrophenol	10.0	10.7		ug/L		107	40 - 121
2,4-Dimethylphenol	10.0	9.92		ug/L		99	36 - 109
Bis(2-chloroethoxy)methane	10.0	9.99		ug/L		100	42 - 119
2,4-Dichlorophenol	10.0	9.89		ug/L		99	39 _ 118
4-Chloroaniline	10.0	9.02		ug/L		90	19 - 129
4-Chloro-3-methylphenol	10.0	9.79		ug/L		98	44 - 131
2-Methylnaphthalene	10.0	10.0		ug/L		100	40 - 121
Hexachlorocyclopentadiene	10.0	7.68		ug/L		77	21 - 126
2,4,6-Trichlorophenol	10.0	9.88		ug/L		99	39 _ 123
2,4,5-Trichlorophenol	10.0	10.7		ug/L		107	38 - 145
2-Chloronaphthalene	10.0	9.48		ug/L		95	43 - 120
2-Nitroaniline	10.0	11.0		ug/L		110	42 _ 130
Dimethyl phthalate	10.0	10.2		ug/L		102	49 - 121
Acenaphthylene	10.0	10.2		ug/L		102	35 _ 135
2,6-Dinitrotoluene	10.0	10.5		ug/L		105	45 - 122
3-Nitroaniline	10.0	10.0		ug/L		100	47 - 138

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-79421/2-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA**

Analysis Batch: 79549 Prep Batch: 79421 LCS LCS Spike

	Spike	LUS	LUS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	10.0	9.54		ug/L		95	47 - 145	20000000
2,4-Dinitrophenol	10.0	12.5		ug/L		125	23 - 130	
4-Nitrophenol	10.0	2.84		ug/L		28	14 - 132	
Dibenzofuran	10.0	10.0		ug/L		100	46 - 123	
2,4-Dinitrotoluene	10.0	10.9		ug/L		109	43 _ 128	
Diethyl phthalate	10.0	10.7		ug/L		107	51 - 123	
4-Chlorophenyl phenyl ether	10.0	10.1		ug/L		101	48 - 125	
Fluorene	10.0	10.1		ug/L		101	48 _ 127	
4-Nitroaniline	10.0	10.6		ug/L		106	32 - 139	
4,6-Dinitro-2-methylphenol	10.0	8.19		ug/L		82	24 - 122	
4-Bromophenyl phenyl ether	10.0	9.95		ug/L		100	46 - 129	
Hexachlorobenzene	10.0	9.84		ug/L		98	46 - 129	
Pentachlorophenol	10.0	9.09		ug/L		91	9 _ 147	
Phenanthrene	10.0	10.4		ug/L		104	52 _ 121	
Anthracene	10.0	10.5		ug/L		105	53 - 124	
Di-n-butyl phthalate	10.0	11.3		ug/L		113	54 - 138	
Fluoranthene	10.0	10.3		ug/L		103	53 _ 127	
Pyrene	10.0	9.68		ug/L		97	49 - 121	
Butyl benzyl phthalate	10.0	11.3		ug/L		113	50 - 126	
3,3'-Dichlorobenzidine	10.0	10.8		ug/L		108	38 - 168	
Benzo[a]anthracene	10.0	10.0		ug/L		100	53 - 122	
Bis(2-ethylhexyl) phthalate	10.0	10.7		ug/L		107	47 _ 132	
Chrysene	10.0	10.2		ug/L		102	49 - 124	
Di-n-octyl phthalate	10.0	9.91		ug/L		99	27 _ 157	
Benzo[b]fluoranthene	10.0	9.78		ug/L		98	53 - 131	
Benzo[k]fluoranthene	10.0	10.2		ug/L		102	46 - 130	
Benzo[a]pyrene	10.0	10.3		ug/L		103	50 - 124	
Indeno[1,2,3-cd]pyrene	10.0	10.8		ug/L		108	45 - 124	
Dibenz(a,h)anthracene	10.0	10.2		ug/L		102	42 _ 134	
Benzo[g,h,i]perylene	10.0	11.3		ug/L		113	46 - 133	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Phenol-d6	24		10 - 94
2,4,6-Tribromophenol	89		10 - 123
2-Fluorobiphenyl	93		43 - 116
2-Fluorophenol	41		10 - 100
Nitrobenzene-d5	91		35 - 114
Terphenyl-d14	90		33 - 141

Lab Sample ID: 600-54909-3 MS

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-5
Prep Type: Total/NA
Prep Batch: 79421

_	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Aniline	0.39	U	9.85	4.07	J	ug/L		41	10 - 130
Phenol	1.2	J	9.85	3.45	J	ug/L		23	10 - 62
Bis(2-chloroethyl)ether	0.74	U	9.85	9.19		ug/L		93	20 - 107
2-Chlorophenol	0.64	Ü	9.85	8.19	J	ug/L		83	36 - 96
Benzyl alcohol	0.84	U	9.85	5.84	J	ug/L		59	17 _ 111

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54909-3 MS

Client Sample ID: MW-5
Prep Type: Total/NA
Prep Batch: 79421

Matrix: Water Analysis Batch: 79705	Sample	Sample	Spike	MS	MS Qualifier	er Unit	D	%Rec	Prep Type: Total/NA Prep Batch: 79421 %Rec.
Analyte	Result	Qualifier	Added	Result					Limits
Bis(2-chloroisopropyl) ether	2.0	U	9.85	9.33	<u>@</u>	ug/L		95	50 - 130
3 & 4 Methylphenol	0.99	U	9.85	6.15		ug/L		62	12 _ 111
N-Nitrosodi-n-propylamine	0.49	U	9.85	9.18	J	ug/L		93	44 - 110
Hexachloroethane	0.49	U	9.85	11.1	F	ug/L		113	35 - 101
Nitrobenzene	0.54	Ü	9.85	14.7	F	ug/L		149	37 - 104
Isophorone	0.54	U	9.85	8.90		ug/L		90	45 - 109
2-Nitrophenol	1.1	U	9.85	9.88		ug/L		100	48 - 100
2,4-Dimethylphenol	1.5	Ü	9.85	9.62	JF	ug/L		98	25 - 85
Bis(2-chloroethoxy)methane	0.64	U	9.85	10.3	F	ug/L		104	42 - 101
2,4-Dichlorophenol	0.74	U	9.85	9.10	J	ug/L		92	40 - 106
4-Chloroaniline	1.0	U	9.85	7.88		ug/L		80	49 - 151
4-Chloro-3-methylphenol	0.84	U	9.85	9.31		ug/L		95	67 - 133
2-Methylnaphthalene	260		9.85	316	4	ug/L		531	36 _ 111
Hexachlorocyclopentadiene	0.64	Ü	9.85	7.14	j	ug/L		73	10 - 109
2,4,6-Trichlorophenol	0.89		9.85	10.2		ug/L		104	62 - 107
2,4,5-Trichlorophenol	1.2		9.85	9.47	J	ug/L		96	45 - 116
2-Chloronaphthalene	0.39		9.85	9.62		ug/L		98	42 - 100
2-Nitroaniline	0.94		9.85	15.4	F	ug/L		156	30 - 130
Dimethyl phthalate	0.34		9.85	9.86		ug/L		100	51 - 120
Acenaphthylene	0.30		9.85	11.0		ug/L		111	38 - 115
2,6-Dinitrotoluene	0.39		9.85	9.61		ug/L		98	47 - 118
3-Nitroaniline	0.79		9.85	10.2	J	ug/L		104	30 - 130
Acenaphthene	2.3		9.85	11.5		ug/L		93	46 - 118
2,4-Dinitrophenol	1.9		9.85	41.5	F	ug/L		422	40 - 140
4-Nitrophenol	2.8		9.85	23.9		ug/L		242	10 - 100
Dibenzofuran	1.2		9.85	10.6		ug/L		96	46 - 110
2,4-Dinitrotoluene	0.64		9.85	13.6	F	ug/L		138	41 - 125
Diethyl phthalate	7.4		9.85	11.1		ug/L		113	60 - 140
4-Chlorophenyl phenyl ether	0.49		9.85	9.75		ug/L		99	41 - 116
Fluorene	4.2		9.85	15.0		ug/L		110	44 - 112
4-Nitroaniline	1.2		9.85	4.96	1	ug/L		50	46 - 154
4,6-Dinitro-2-methylphenol	4.1		9.85	9.75		ug/L		99	28 - 128
4-Bromophenyl phenyl ether	0.49		9.85	9.69	J	ug/L		98	50 - 113
Hexachlorobenzene	0.49		9.85	8.89		ug/L ug/L		90	29 - 126
Pentachlorophenol	3.0		9.85						
•				11.4	J	ug/L		116	45 ₋ 155
Phenanthrene	2.0		9.85	11.7		ug/L		99	41 - 117
Anthracene	0.25		9.85	10.1	, 1,5 c , 5 c d , 5 c j =)	ug/L		103	35 - 116
Di-n-butyl phthalate	0.54		9.85	10.3		ug/L		105	31 - 137
Fluoranthene	0.34		9.85	9.82		ug/L		100	14 - 145
Pyrene	0.54		9.85	9.37		ug/L		95	28 - 133
Butyl benzyl phthalate	0.59		9.85	11.0		ug/L		111	36 - 144
3,3'-Dichlorobenzidine	0.89		9.85	0.89		ug/L		0	33 - 167
Benzo[a]anthracene	0.39		9.85	9.17		ug/L		93	24 - 126
Bis(2-ethylhexyl) phthalate	1.8		9.85	8.52	J	ug/L		86	14 - 123
Chrysene	0.39		9.85	9.71		ug/L		99	23 - 128
Di-n-octyl phthalate	0.79		9.85	7.98		ug/L		81	30 - 170
Benzo[b]fluoranthene	0.34		9.85	8.09		ug/L		82	31 - 119
Benzo[k]fluoranthene	0.44		9.85	7.77	J	ug/L		79	29 _ 117
Benzo[a]pyrene	0.39		9.85	8.39		ug/L		85	60 - 140
Indeno[1,2,3-cd]pyrene	0.34	U	9.85	7.93	J	ug/L		80	60 - 140

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Sample Sample

Sample Sample

Result Qualifier

Lab Sample ID: 600-54909-3 MS

Client: Pastor, Behling & Wheeler LLC

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-5 Prep Type: Total/NA

Prep Batch: 79421

	Campio	Campio	Opino						701100.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Dibenz(a,h)anthracene	0.39	U	9.85	8.07	J	ug/L		82	62 - 138	
Benzo[g,h,i]perylene	0.39	U	9.85	7.75	J	ug/L		79	10 - 123	

MS MS

MSD MSD

Result Qualifier

Unit

%Rec

Snike

MS MS Qualifier Surrogate %Recovery Limits Phenol-d6 27 10 - 94 2,4,6-Tribromophenol 99 10 - 123 2-Fluorobiphenyl 92 43 - 116 39 10 - 100 2-Fluorophenol 85 35 - 114 Nitrobenzene-d5 33 - 141 Terphenyl-d14 82

Lab Sample ID: 600-54909-3 MSD

Matrix: Water

Analyte

Analysis Batch: 79705

Client Sample ID: MW-5					
Prep Type: Total/NA					
Prep Batch: 79421					

%Rec. RPD Limits RPD Limit

20

20

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Aniline 0.39 U 9.85 3.88 J ug/L 39 10 _ 130 5 20 9.85 22 20 Phenol 1.2 J 3.42 J ug/L 10 - 62 Bis(2-chloroethyl)ether 0.74 U 9.85 9.11 ug/L 93 20 - 107 20 2-Chlorophenol 0.64 U 9.85 8.24 J 84 36 - 96 20 ug/L 9.85 17 - 111 Benzyl alcohol 0.84 U 6.64 ug/L 67 13 20 9.85 2.0 U 9 48 96 50 - 130 2 20 Bis(2-chloroisopropyl) ether ug/L 3 & 4 Methylphenol 0.99 U 9.85 6.47 66 12 - 111 5 20 ug/L 0.49 U 9.85 10.4 J 106 44 _ 110 20 N-Nitrosodi-n-propylamine ug/L 13 Hexachloroethane 0.49 U 9.85 10.5 F ug/L 106 35 - 1016 20 Nitrobenzene 0.54 U 9.85 14.5 F ug/L 147 37 - 104 20

Spike

Added

Isophorone 0.54 U 9.85 8.99 ug/L 91 45 - 109 2-Nitrophenol 1.1 U 9.85 10.5 F ug/L 107 48 - 100 9.85 3 2,4-Dimethylphenol 1.5 U 9.95 JF ug/L 101 25 - 85 Bis(2-chloroethoxy)methane 0.64 U 9.85 10.9 F ug/L 110 42 - 101 2,4-Dichlorophenol 9.85 40 - 106 0.74 U 10.0 J ug/L 102 10 9.85 7.83 79 4-Chloroaniline 1.0 U ug/L 49 - 151 4-Chloro-3-methylphenol 0.84 U 9 85 10.3 ug/L 105 67 - 13310 2-Methylnaphthalene 260 9.85 277 4 ug/L 142 36 - 111 13 Hexachlorocyclopentadiene 0.64 U 9.85 6.96 71 10 _ 109 3 ug/L

2,4,6-Trichlorophenol 0.89 U 9.85 10.8 F 109 62 - 107 5 ug/L 9.85 10.8 109 2,4,5-Trichlorophenol 1.2 U 45 _ 116 13 ug/L 2-Chloronaphthalene 0.39 U 9.85 9.76 99 42 - 100 ug/L ug/L 2-Nitroaniline 0.94 U 9.85 13.8 F 140 30 - 130 11 Dimethyl phthalate 0.34 U 9.85 10.5 J ug/L 107 51 - 120 ug/L Acenaphthylene 0.30 U 9.85 10.7 109 38 - 115 9.85 47 - 118 2.6-Dinitrotoluene 0.39 U 10.3 ug/L 104

3-Nitroaniline 0.79 U 9.85 9.76 J ug/L 99 30 - 130 5 Acenaphthene 9.85 2 2.3 J 11.7 ug/L 96 46 - 118 40.9 F 2,4-Dinitrophenol 1.9 U 9.85 415 2 ug/L 40 - 140 9.85 197 4-Nitrophenol 2.8 U 19.4 F ug/L 10 - 100 20 Dibenzofuran 1.2 9.85 10.6 ug/L 96 46 - 110 0

2,4-Dinitrotoluene 0.64 U 9.85 12.0 ug/L 121 41 - 125 Diethyl phthalate 7.4 U 9.85 11.6 J ug/L 117 60 - 140

Spike

MSD MSD

TestAmerica Job ID: 600-54909-1

%

Project/Site: R&H Oil

Project/Site. Ran Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Sample Sample

Lab Sample ID: 600-54909-3 MSD

Client: Pastor, Behling & Wheeler LLC

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-5
Prep Type: Total/NA

Prep Type: Tot	al/NA
Prep Batch:	79421
Rec.	RPD

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4-Chlorophenyl phenyl ether	0.49	U	9.85	10.0		ug/L		102	41 - 116	3	20
Fluorene	4.2	J	9.85	14.0		ug/L		100	44 - 112	7	20
4-Nitroaniline	1.2	U	9.85	6.31	JF	ug/L		64	46 - 154	24	20
4,6-Dinitro-2-methylphenol	4.1	n N	9.85	11.4	J	ug/L		116	28 - 128	16	20
4-Bromophenyl phenyl ether	0.49	U	9.85	10.4		ug/L		105	50 - 113	7	20
Hexachlorobenzene	0.54	U	9.85	10.5		ug/L		107	29 - 126	17	20
Pentachlorophenol	3.0	U	9.85	11.7	J	ug/L		118	45 - 155	2	20
Phenanthrene	2.0	J	9.85	11.6		ug/L		97	41 - 117	1	20
Anthracene	0.25	U	9.85	10.6		ug/L		107	35 - 116	4	20
Di-n-butyl phthalate	0.54	U	9.85	11.8	J	ug/L		120	31 - 137	13	20
Fluoranthene	0.34	U	9.85	10.4	J	ug/L		106	14 - 145	6	20
Pyrene	0.54	U	9.85	9.38	J	ug/L		95	28 - 133	0	20
Butyl benzyl phthalate	0.59	U	9.85	12.2		ug/L		124	36 - 144	11	20
3,3'-Dichlorobenzidine	0.89	U	9.85	0.89	UF	ug/L		0	33 - 167	NC	20
Benzo[a]anthracene	0.39	U	9.85	9.28	J	ug/L		94	24 - 126	1	20
Bis(2-ethylhexyl) phthalate	1.8	U	9.85	8.26	J	ug/L		84	14 - 123	3	20
Chrysene	0.39	U	9.85	9.96		ug/L		101	23 - 128	3	20
Di-n-octyl phthalate	0.79	U	9.85	8.82	J	ug/L		90	30 - 170	10	20
Benzo[b]fluoranthene	0.34	U	9.85	8.72	J	ug/L		89	31 - 119	7	20
Benzo[k]fluoranthene	0.44	U	9.85	8.56	J	ug/L		87	29 - 117	10	20
Benzo[a]pyrene	0.39	U	9.85	9.18		ug/L		93	60 - 140	9	20
Indeno[1,2,3-cd]pyrene	0.34	U	9.85	8.84	J	ug/L		90	60 - 140	11	20

9.85

9.85

8.79 J

7.93 J

ug/L

ug/L

MSD MSD

0.39 U

0.39 U

Surrogate	%Recovery	Qualifier	Limits
Phenol-d6	14	()	10 - 94
2,4,6-Tribromophenol	100		10 - 123
2-Fluorobiphenyl	95		43 - 116
2-Fluorophenol	39		10 - 100
Nitrobenzene-d5	97		35 - 114
Terphenyl-d14	84		33 - 141

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Dibenz(a,h)anthracene

Benzo[g,h,i]perylene

Analysis Batch: 79705

Client Sample ID: MW-7
Prep Type: Total/NA
Prop Patch: 70424

62 _ 138

10 - 123

8

2

20

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aniline	0.079	U	9.85	2.80	:	ug/L		28	10 - 130	
Phenol	0.039	U	9.85	1.97		ug/L		20	10 - 62	
Bis(2-chloroethyl)ether	0.15	U	9.85	6.28		ug/L		64	20 - 107	
2-Chlorophenol	0.13	U	9.85	5.65		ug/L		57	36 - 96	
Benzyl alcohol	0.17	U	9.85	4.35	J	ug/L		44	17 - 111	
Bis(2-chloroisopropyl) ether	0.39	U	9.85	6.23		ug/L		63	50 - 130	
3 & 4 Methylphenol	0.20	U	9.85	4.25		ug/L		43	12 _ 111	
N-Nitrosodi-n-propylamine	0.099	U	9.85	6.64		ug/L		67	44 - 110	
Hexachloroethane	0.099	U	9.85	5.95		ug/L		60	35 - 101	
Nitrobenzene	0.11	Ü	9.85	6.55		ug/L		67	37 - 104	
Isophorone	0.11	U	9.85	6.39		ug/L		65	45 _ 109	

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Client Sample ID: MW-7 Prep Type: Total/NA

Analysis Batch: 79705									Prep Type: Prep Batc	
7 , 0.0	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2-Nitrophenol	0.22	U	9.85	6.99	(2	ug/L	20 (2.20)	71	48 - 100	_
2,4-Dimethylphenol	0.31	U	9.85	5.97		ug/L		61	25 _ 85	
Bis(2-chloroethoxy)methane	0.13	U	9.85	6.70		ug/L		68	42 - 101	
2,4-Dichlorophenol	0.15	U	9.85	6.96		ug/L		71	40 - 106	
4-Chloroaniline	0.21	Ü	9.85	5.77		ug/L		59	49 - 151	
4-Chloro-3-methylphenol	0.17	U	9.85	7.34		ug/L		75	67 - 133	
2-Methylnaphthalene	0.069	U	9.85	6.72		ug/L		68	36 - 111	
Hexachlorocyclopentadiene	0.13	U	9.85	5.61		ug/L		57	10 - 109	
2,4,6-Trichlorophenol	0.18	U	9.85	7.96		ug/L		81	62 - 107	
2,4,5-Trichlorophenol	0.25	U	9.85	8.36		ug/L		85	45 ₋ 116	
2-Chloronaphthalene	0.079	U	9.85	6.59		ug/L		67	42 - 100	
2-Nitroaniline	0.19	U	9.85	7.95		ug/L		81	30 - 130	
Dimethyl phthalate	0.069	U	9.85	7.94		ug/L		81	51 - 120	
Acenaphthylene	0.059	U	9.85	7.39		ug/L		75	38 _ 115	
2,6-Dinitrotoluene	0.079	U	9.85	8.66		ug/L		88	47 - 118	
3-Nitroaniline	0.16	U	9.85	7.42		ug/L		75	30 - 130	
Acenaphthene	0.079	U	9.85	7.11		ug/L		72	46 - 118	
2,4-Dinitrophenol	0.38	U	9.85	13.0		ug/L		132	40 - 140	
4-Nitrophenol	0.55	U	9.85	3.12		ug/L		32	10 - 100	
Dibenzofuran	0.079	U	9.85	7.42		ug/L		75	46 - 110	
2,4-Dinitrotoluene	0.13	U	9.85	8.76		ug/L		89	41 - 125	
Diethyl phthalate	1.5	U	9.85	8.50		ug/L		86	60 - 140	
4-Chlorophenyl phenyl ether	0.099	U	9.85	7.87		ug/L		80	41 - 116	
Fluorene	0.069	U	9.85	7.84		ug/L		80	44 - 112	
4-Nitroaniline	0.25	U	9.85	7.04		ug/L		71	46 - 154	
4,6-Dinitro-2-methylphenol	0.82	U	9.85	6.36		ug/L		65	28 - 128	
4-Bromophenyl phenyl ether	0.099	U	9.85	8.06		ug/L		82	50 - 113	
Hexachlorobenzene	0.11	U	9.85	7.58		ug/L		77	29 _ 126	
Pentachlorophenol	0.60	U	9.85	6.55		ug/L		66	45 - 155	
Phenanthrene	0.059	U	9.85	8.11		ug/L		82	41 - 117	
Anthracene	0.049	U	9.85	8.22		ug/L		83	35 - 116	
Di-n-butyl phthalate	0.19	J	9.85	8.59		ug/L		85	31 - 137	
Fluoranthene	0.069	U	9.85	8.48		ug/L		86	14 _ 145	
Pyrene	0.11	U	9.85	7.48		ug/L		76	28 - 133	
Butyl benzyl phthalate	0.20	JB	9.85	8.58		ug/L		85	36 - 144	
3,3'-Dichlorobenzidine	0.18	U	9.85	4.00	J	ug/L		41	33 - 167	
Benzo[a]anthracene	0.079	U	9.85	7.98		ug/L		81	24 - 126	
Bis(2-ethylhexyl) phthalate	0.36	U	9.85	7.28		ug/L		74	14 - 123	
Chrysene	0.079	U	9.85	7.94		ug/L		81	23 - 128	
Di-n-octyl phthalate	0.16	U	9.85	7.19		ug/L		73	30 - 170	
Benzo[b]fluoranthene	0.069	U	9.85	8.48		ug/L		86	31 - 119	
Benzo[k]fluoranthene	0.089	U	9.85	8.60		ug/L		87	29 - 117	
Benzo[a]pyrene	0.079	U	9.85	8.12		ug/L		82	60 - 140	
Indeno[1,2,3-cd]pyrene	0.069	U	9.85	7.81		ug/L		79	60 - 140	
Dibenz(a,h)anthracene	0.079	U	9.85	7.29		ug/L		74	62 - 138	
Benzo[g,h,i]perylene	0.079	U	9.85	7.57		ug/L		77	10 - 123	
						-				
	MS	MS								

Surrogate	%Recovery	Qualifier	Limits
Phenol-d6	17	· · · · · ·	10 - 94

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-7 Prep Type: Total/NA

Prep Batch: 79421

MS MS

0.21 U

0.17 U

0.13 U

0.18 U

0.25 U

0.079 U

0.19 U

0.069 U

0.059 U

0.079 U

0.16 U

0.079 U

0.38 U

0.55 U

0.079 U

0.13 U

1.5 U

0.099 U

0.069 U

0.25 U

0.82 U

0.099 U

0.069 U

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol	76		10 - 123
2-Fluorobiphenyl	61		43 - 116
2-Fluorophenol	27		10 - 100
Nitrobenzene-d5	61		35 - 114
Terphenyl-d14	69		33 - 141

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

4-Chloroaniline

4-Chloro-3-methylphenol

Hexachlorocyclopentadiene

2-Methylnaphthalene

2,4,6-Trichlorophenol

2,4,5-Trichlorophenol

2-Chloronaphthalene

Dimethyl phthalate

Acenaphthylene

3-Nitroaniline

Acenaphthene

4-Nitrophenol

Dibenzofuran

Fluorene

4-Nitroaniline

2,4-Dinitrophenol

2,4-Dinitrotoluene

Diethyl phthalate

4-Chlorophenyl phenyl ether

4,6-Dinitro-2-methylphenol

4-Bromophenyl phenyl ether

2,6-Dinitrotoluene

2-Nitroaniline

Analysis Batch: 79705

Client Sample ID: MW-7 Prep Type: Total/NA

Prep Batch: 79421

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16

28

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6

10

19

10

Analysis Batch: 79705									Prep	9421	
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aniline	0.079	U	9.85	3.22		ug/L		33	10 - 130	14	20
Phenol	0.039	U	9.85	2.36		ug/L		24	10 - 62	18	20
Bis(2-chloroethyl)ether	0.15	U	9.85	7.02		ug/L		71	20 - 107	11	20
2-Chlorophenol	0.13	U	9.85	6.73		ug/L		68	36 - 96	17	20
Benzyl alcohol	0.17	U	9.85	4.82	J	ug/L		49	17 _ 111	10	20
Bis(2-chloroisopropyl) ether	0.39	U	9.85	7.06		ug/L		72	50 - 130	12	20
3 & 4 Methylphenol	0.20	U	9.85	5.22		ug/L		53	12 - 111	20	20
N-Nitrosodi-n-propylamine	0.099	U	9.85	7.32		ug/L		74	44 - 110	10	20
Hexachloroethane	0.099	U	9.85	6.97		ug/L		71	35 - 101	16	20
Nitrobenzene	0.11	U	9.85	7.72		ug/L		78	37 - 104	16	20
Isophorone	0.11	U	9.85	7.30		ug/L		74	45 - 109	13	20
2-Nitrophenol	0.22	U	9.85	8.31		ug/L		84	48 - 100	17	20
2,4-Dimethylphenol	0.31	U	9.85	5.86		ug/L		59	25 - 85	2	20
Bis(2-chloroethoxy)methane	0.13	U	9.85	7.44		ug/L		75	42 - 101	10	20
2,4-Dichlorophenol	0.15	U	9.85	7.66		ug/L		78	40 - 106	10	20

9.85

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5.73

8.16

7.58

6.49

8.46

8.75

7.52

8.93

8.70

8.26

9.43

7.33

7.81

15.3 F

4.15 F

8.32

9.29

9.14

8.60

8.66

7.18

7.69

8.89

ug/L

58

83

77

66

86

89

76

88

84

96

74

79

156

42

84

94

93

87

88

73

78

90

49 - 151

67 - 133

36 _ 111

10 - 109

62 - 107

45 - 116

42 - 100

30 - 130

51 - 120

38 - 115

47 - 118

30 - 130

46 - 118

40 - 140

10 - 100

46 - 110

41 - 125

60 - 140

41 - 116

44 - 112

46 - 154

28 - 128

50 - 113

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Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-7

Prep	Type: Total/NA
Pre	n Batch: 79421

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Hexachlorobenzene	0.11	U	9.85	8.27		ug/L		84	29 - 126	9	20
Pentachlorophenol	0.60	U	9.85	7.71		ug/L		78	45 - 155	16	20
Phenanthrene	0.059	U	9.85	8.68		ug/L		88	41 - 117	7	20
Anthracene	0.049	U	9.85	8.65		ug/L		88	35 - 116	5	20
Di-n-butyl phthalate	0.19	J	9.85	9.31		ug/L		93	31 - 137	8	20
Fluoranthene	0.069	U	9.85	8.86		ug/L		90	14 - 145	4	20
Pyrene	0.11	U	9.85	7.98		ug/L		81	28 - 133	6	20
Butyl benzyl phthalate	0.20	JB	9.85	9.35		ug/L		93	36 - 144	9	20
3,3'-Dichlorobenzidine	0.18	U	9.85	4.28	J	ug/L		43	33 - 167	7	20
Benzo[a]anthracene	0.079	U	9.85	8.23		ug/L		84	24 - 126	3	20
Bis(2-ethylhexyl) phthalate	0.36	U	9.85	7.65		ug/L		78	14 - 123	5	20
Chrysene	0.079	U	9.85	9.00		ug/L		91	23 - 128	13	20
Di-n-octyl phthalate	0.16	U	9.85	7.40		ug/L		75	30 - 170	3	20
Benzo[b]fluoranthene	0.069	U	9.85	8.60		ug/L		87	31 - 119	1	20
Benzo[k]fluoranthene	0.089	U	9.85	9.61		ug/L		98	29 - 117	11	20
Benzo[a]pyrene	0.079	U	9.85	8.36		ug/L		85	60 - 140	3	20
Indeno[1,2,3-cd]pyrene	0.069	U	9.85	8.12		ug/L		82	60 - 140	4	20
Dibenz(a,h)anthracene	0.079	U	9.85	7.72		ug/L		78	62 - 138	6	20
Benzo[g,h,i]perylene	0.079	U	9.85	7.76		ug/L		79	10 - 123	3	20

MSD MSD

IVISD	พรบ	
%Recovery	Qualifier	Limits
20		10 - 94
82		10 - 123
69		43 - 116
32		10 - 100
71		35 ₋ 114
74		33 - 141
	%Recovery 20 82 69 32 71	20 82 69 32 71

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 600-79551/1-A

Matrix: Water

Analysis Batch: 79655

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 79551

- 1										
	Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	C6-C12	0.83	U	2.0	0.83	mg/L		05/18/12 09:26	05/18/12 16:56	1
	>C12-C28	0.96	U	2.0	0.96	mg/L		05/18/12 09:26	05/18/12 16:56	1
	>C28-C35	0.96	U	2.0	0.96	mg/L		05/18/12 09:26	05/18/12 16:56	1
	C6-C35	1.6	U	2.0	1.6	mg/L		05/18/12 09:26	05/18/12 16:56	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Ternhenyl	94		70 130	05/18/12 00:	26 05/18/12 16:56	1

Lab Sample ID: LCS 600-79551/2-A

Matrix: \

Analyte C6-C12

Analysis

mple ID: LCS 600-79551/2-A					Client	Sample	ID: Lab Control Sample)
Water							Prep Type: Total/NA	l.
is Batch: 79655							Prep Batch: 7955	ı
	Spike	LCS	LCS				%Rec.	
	Added	Result	Qualifier	Unit	D	%Rec	Limits	

39.9

mg/L

120

75 - 125

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33.3

Client Sample ID: MW-5 Prep Type: Total/NA

Client Sample ID: MW-5

Client Sample ID: MW-7

Prep Type: Total/NA

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Lab Sample ID: LCS 600-79551/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA Prep Batch: 79551 **Analysis Batch: 79655** LCS LCS

Spike Analyte Added Result Qualifier %Rec Limits Unit >C12-C28 33.3 41.5 124 75 - 125 mg/L C6-C35 66.7 81.3 mg/L 122 75 - 125

LCS LCS %Recovery Qualifier Limits Surrogate 70 - 130 o-Terphenyl 129

Lab Sample ID: 600-54909-3 MS

Matrix: Water Analysis Batch: 79655

Prep Batch: 79551 Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits C6-C12 2.8 32.4 27.5 mg/L 76 75 - 125 >C12-C28 16 32.4 39 1 F mg/L 70 75 - 125 C6-C35 20 64.7 66.6 F mg/L 72 75 - 125 MS MS Surrogate Qualifier Limits %Recovery o-Terphenyl 70 - 130 94

Lab Sample ID: 600-54909-3 MSD

Matrix: Water Prep Type: Total/NA **Analysis Batch: 79655** Prep Batch: 79551 Sample Sample Spike MSD MSD %Rec.

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C6-C12	2.8	(33.0	37.9	F	mg/L	10 (2-10	107	75 - 125	32	20
>C12-C28	16		33.0	49.5	F	mg/L		101	75 - 125	24	20
C6-C35	20		65.9	87.5	F	mg/L		103	75 - 125	27	20
	MSD	MSD									

Surrogate %Recovery Qualifier Limits o-Terphenyl 127 70 - 130

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Analysis Databy 70055

Analysis Batch: 79655									Prep Batter	1: /9551
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
C6-C12	0.80	U	32.4	36.1	()	mg/L		111	75 _ 125	
>C12-C28	0.93	U	32.4	38.0		mg/L		117	75 - 125	
C6-C35	1.5	U	64.7	74.0		mg/L		114	75 _ 125	
	MS	MS								
	III S	MS								
Surrogate	%Recovery	Qualifier	Limits							

o-Terphenyl 126 70 - 130

Matrix: Water

Lab Sample ID: 600-54909-8 MSD

Analysis Batch: 79655								Prep Batch: 795				
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
C6-C12	0.80	U	32.4	37.5).	mg/L		116	75 - 125	4	20	
>C12-C28	0.93	U	32.4	37.1		mg/L		115	75 - 125	2	20	

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Client Sample ID: MW-7

Prep Type: Total/NA

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Lab Sample ID: 600-54909-8 MSD Client Sample ID: MW-7 **Matrix: Water** Prep Type: Total/NA **Analysis Batch: 79655** Prep Batch: 79551 MSD MSD Sample Sample Spike **RPD**

Analyte Result Qualifier Added Result Qualifier Limits RPD Limit Unit %Rec C6-C35 U 64.8 115 1.5 74.7 75 - 125 20 mg/L

MSD MSD

Surrogate %Recovery Qualifier Limits 129 70 - 130 o-Terphenyl

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-79276/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 79370 Prep Batch: 79276

MB MB Result Qualifier SDL Unit Analyte MQL (Adj) Prepared Analyzed Dil Fac 0.0033 U Arsenic 0.010 0.0033 mg/L 05/15/12 11:24 05/16/12 10:49 Aluminum 0.0266 J 0.50 0.022 mg/L 05/15/12 11:24 05/16/12 10:49 Barium 0.0022 U 0.020 0.0022 mg/L 05/15/12 11:24 05/16/12 10:49 Cobalt 0.00063 U 0.010 0.00063 mg/L 05/15/12 11:24 05/16/12 10:49 0.010 0.0016 mg/L 05/16/12 10:49 Chromium 0.0016 U 05/15/12 11:24 Copper 0.0015 U 0.010 0.0015 mg/L 05/15/12 11:24 05/16/12 10:49 0.00084 mg/L Manganese 0.00084 U 0.010 05/15/12 11:24 05/16/12 10:49 Nickel 0.0018 U 0.010 0.0018 mg/L 05/15/12 11:24 05/16/12 10:49 Lead 0.0029 U 0.010 0.0029 mg/L 05/15/12 11:24 05/16/12 10:49 Selenium 0.0042 U 0.040 0.0042 mg/L 05/15/12 11:24 05/16/12 10:49 Thallium 0.0078 U 0.0078 mg/L 0.030 05/15/12 11:24 05/16/12 10:49 Vanadium 0.010 0.0017 mg/L 0.0017 U 05/15/12 11:24 05/16/12 10:49 0.00420 J 0.030 0.0022 mg/L 05/15/12 11:24 05/16/12 10:49 Zinc

Lab Sample ID: LCS 600-79276/2-A **Client Sample ID: Lab Control Sample**

Matrix: Water

Analysis Batch: 79370 Prep Batch: 79276

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	1.00	1.03	V-	mg/L		103	80 - 120	
Aluminum	10.0	10.1		mg/L		101	80 _ 120	
Barium	1.00	1.03		mg/L		103	80 _ 120	
Cobalt	1.00	1.03		mg/L		103	80 - 120	
Chromium	1.00	1.02		mg/L		102	80 _ 120	
Copper	1.00	1.02		mg/L		102	80 _ 120	
Manganese	1.00	1.02		mg/L		102	80 - 120	
Nickel	1.00	1.01		mg/L		101	80 _ 120	
Lead	1.00	1.01		mg/L		101	80 - 120	
Selenium	1.00	1.03		mg/L		103	80 _ 120	
Thallium	1.00	1.02		mg/L		102	80 _ 120	
Vanadium	1.00	1.02		mg/L		102	80 _ 120	
Zinc	1.00	1.01		mg/L		101	80 - 120	

Prep Type: Total/NA

Project/Site: R&H Oil

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-54909-3 MS

Client: Pastor, Behling & Wheeler LLC

Matrix: Water

Analysis Batch: 79370

Client Sample ID: MW-5 Prep Type: Total/NA Prep Batch: 79276

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	0.19		1.00	1.24		mg/L	- 12 (SI-2)	105	75 - 125	
Aluminum	0.034	JB	10.0	10.2		mg/L		102	75 - 125	
Barium	0.45		1.00	1.44		mg/L		99	75 - 125	
Cobalt	0.0041	J	1.00	1.06		mg/L		106	75 - 125	
Chromium	0.0016	U	1.00	0.990		mg/L		99	75 - 125	
Copper	0.0057	J	1.00	1.01		mg/L		100	75 - 125	
Manganese	0.49		1.00	1.44		mg/L		95	75 - 125	
Nickel	0.0045	J	1.00	1.04		mg/L		104	75 - 125	
Lead	0.0044	J	1.00	1.03		mg/L		103	75 - 125	
Selenium	0.0042	U	1.00	1.05		mg/L		105	75 - 125	
Thallium	0.0078	U	1.00	1.02		mg/L		102	75 - 125	
Vanadium	0.0017	U	1.00	1.01		mg/L		101	75 - 125	

1.00

Spike

1.09

MSD MSD

1.00

1.08

mg/L

mg/L

mg/L

Lab Sample ID: 600-54909-3 MSD

0.074 B

Sample Sample

0.0017 U

0.074 B

Matrix: Water

Zinc

Analysis Batch: 79370

Client Sample ID: MW-5 Prep Type: Total/NA

102

100

101

75 - 125

75 - 125

75 - 125

Prep Batch: 79276

%Rec. RPD

RPD Limit 20

Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits 1.00 104 Arsenic 0.19 1.23 mg/L 75 - 125 Aluminum 0.034 JB 10.0 10.2 mg/L 102 75 - 125 20 Barium 1.00 1.44 0.45 mg/L 99 75 - 125 0 20 Cobalt 0.0041 1.00 1.05 mg/L 105 75 - 125 20 mg/L Chromium 0.0016 U 1.00 0.983 98 75 - 125 20 Copper 0.0057 J 1.00 1.01 mg/L 100 75 - 125 20 Manganese 1.00 1.44 mg/L 95 75 - 125 20 0.49 Nickel 1.00 75 - 125 0.0045 J 1.03 mg/L 102 20 Lead 0.0044 J 1.00 1.02 mg/L 102 75 - 125 20 Selenium 0.0042 U 1.00 1.04 mg/L 104 75 - 125 20 Thallium 0.0078 U 1.00 1.01 mg/L 101 75 - 125 20

1.00

1.00

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Vanadium

Analysis Batch: 79370

Client Sample ID: MW-7 Prep Type: Total/NA Prep Batch: 79276

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Arsenic	0.0043	J	1.00	1.07		mg/L		107	75 - 125
Aluminum	0.084	JB	10.0	10.4		mg/L		103	75 - 125
Barium	0.14		1.00	1.17		mg/L		103	75 - 125
Cobalt	0.00063	U	1.00	1.08		mg/L		108	75 - 125
Chromium	0.0016	U	1.00	1.01		mg/L		101	75 - 125
Copper	0.0049	J	1.00	1.01		mg/L		101	75 - 125
Manganese	0.019		1.00	1.04		mg/L		102	75 - 125
Nickel	0.0018	U	1.00	1.06		mg/L		106	75 - 125
Lead	0.0029	U	1.00	1.05		mg/L		105	75 - 125
Selenium	0.0042	U	1.00	1.07		mg/L		107	75 - 125
Thallium	0.0078	U	1.00	1.04		mg/L		104	75 - 125
Vanadium	0.0017	U	1.00	1.02		mg/L		102	75 - 125

Client Sample ID: MW-7

Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-54909-8 MS Client Sample ID: MW-7 **Matrix: Water Prep Type: Total/NA Analysis Batch: 79370** Prep Batch: 79276

Sample Sample Spike MS MS Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits D Zinc 0.012 JB 1.00 107 1.08 75 - 125 mg/L

Lab Sample ID: 600-54909-8 MSD

Matrix: Water									Prep 1	ype: To	tal/NA
Analysis Batch: 79370									Prep	Batch:	79276
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	0.0043	J	1.00	1.03		mg/L		103	75 - 125	4	20
Aluminum	0.084	JB	10.0	10.3		mg/L		102	75 - 125	1	20
Barium	0.14		1.00	1.14		mg/L		100	75 - 125	2	20
Cobalt	0.00063	U	1.00	1.04		mg/L		104	75 - 125	4	20
Chromium	0.0016	U	1.00	0.993		mg/L		99	75 - 125	1	20
Copper	0.0049	J	1.00	0.998		mg/L		99	75 - 125	1	20
Manganese	0.019		1.00	1.02		mg/L		100	75 - 125	2	20
Nickel	0.0018	U	1.00	1.02		mg/L		102	75 - 125	4	20
Lead	0.0029	U	1.00	1.01		mg/L		101	75 - 125	4	20
Selenium	0.0042	U	1.00	1.03		mg/L		103	75 - 125	4	20
Thallium	0.0078	U	1.00	1.01		mg/L		101	75 - 125	4	20
Vanadium	0.0017	U	1.00	1.01		mg/L		101	75 - 125	1	20
Zinc	0.012	JB	1.00	1.04		mg/L		103	75 ₋ 125	3	20

Lab Sample ID: 600-54909-3 DU Client Sample ID: MW-5 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 79370							Prep Batch:	79276
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Arsenic	0.19		0.191	: 0 2	mg/L		2	20
Aluminum	0.034	JB	0.0703	J	mg/L		70	20
Barium	0.45		0.457		mg/L		2	20
Cobalt	0.0041	J	0.00410	J	mg/L		0	20
Chromium	0.0016	U	0.0016	U	mg/L		NC	20
Copper	0.0057	J	0.0015	U	mg/L		NC	20
Manganese	0.49		0.487		mg/L		0.6	20
Nickel	0.0045	J	0.00430	J	mg/L		5	20
Lead	0.0044	J	0.00450	J	mg/L		2	20
Selenium	0.0042	U	0.0042	U	mg/L		NC	20
Thallium	0.0078	U	0.0078	U	mg/L		NC	20
Vanadium	0.0017	U	0.0017	U	mg/L		NC	20
Zinc	0.074	В	0.0723		mg/L		2	20

Lab Sample ID: 600-54909-8 DU Client Sample ID: MW-7 **Matrix: Water** Prep Type: Total/NA Analysis Batch: 79370 Prep Batch: 79276

	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Arsenic	0.0043	J	0.00410	J	mg/L		5	20
Aluminum	0.084	JB	0.0702	J	mg/L		18	20
Barium	0.14		0.138		mg/L		3	20
Cobalt	0.00063	U	0.00063	U	mg/L		NC	20
Chromium	0.0016	U	0.0016	U	mg/L		NC	20

Project/Site: R&H Oil

Client: Pastor, Behling & Wheeler LLC

Method: 6010B - Metals	(ICP)	(Continued)
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Lab Sample ID: 600-54909-8 Matrix: Water Analysis Batch: 79370	DU						Client Sample ID: Prep Type: To Prep Batch:	tal/NA
-	Sample	Sample	DU	DU			•	RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Copper	0.0049	J	0.00240	J	mg/L		68	20
Manganese	0.019		0.0193		mg/L		0	20
Nickel	0.0018	U	0.0018	U	mg/L		NC	20
Lead	0.0029	U	0.0029	U	mg/L		NC	20
Selenium	0.0042	U	0.0042	U	mg/L		NC	20
Thallium	0.0078	U	0.0078	U	mg/L		NC	20
Vanadium	0.0017	U	0.0017	U	mg/L		NC	20
Zinc	0.012	JB	0.00540	J	mg/L		79	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 600-79339/7-A	Client Sample ID: Method Blank
Matrix: Water	Prep Type: Total/NA
Analysis Batch: 79402	Prep Batch: 79339
MB MB	

Analyte Result Qualifier SDL Unit Analyzed Dil Fac MQL (Adj) Prepared Mercury 0.000026 U 0.00020 0.000026 mg/L 05/16/12 07:31 05/16/12 12:46

1	Lab Sample ID: LCS 600-79339/8-A			Client Sample ID: Lab Co	ontrol Sample
	Matrix: Water			Prep T	ype: Total/NA
	Analysis Batch: 79402			Prep	Batch: 79339
		Spike	LCS LCS	%Rec.	
ı				_ ^_	

Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Mercury	0.00300	0.00306		mg/L		102	70 - 130	
Lab Sample ID: 600-54909-3 MS							Client Sample ID: MW-	-5

Matrix: Water Prep Type: Total/NA Analysis Batch: 79402 Prep Batch: 79339

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Mercury	0.000026	U	0.00300	0.00122	F	mg/L		41	75 - 125	

Lab Sample ID: 600-54909-3 MS	D								Client Sar	nple ID:	MW-5
Matrix: Water									Prep 1	Type: Tot	tal/NA
Analysis Batch: 79402									Prep	Batch:	79339
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.000026	U	0.00300	0.00118	F	mg/L		39	75 - 125	3	20

Lab Sample ID: 600-54909-8 MS	Client Sample ID: MW-7
Matrix: Water	Prep Type: Total/NA
	B B () T0000

Analysis Batch: 79402									Prep B	atcn: 79339
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Mercury	0.000026	U	0.00300	0.00244		mg/L		81	75 - 125	

QC Sample Results

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

Analysis Batch: 79402

Canada Ca

Sample Sample Spike MSD MSD Analyte Result Qualifier Added Result Qualifier D %Rec Limits RPD Limit Unit 2 20 Mercury 0.000026 U 0.00300 0.00240 80 75 - 125 mg/L

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Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

GC/MS VOA

Analysis Batch: 79279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-3 - DL	MW-5	Total/NA	Water	8260B	 0
600-54909-3 MS - DL	MW-5	Total/NA	Water	8260B	
600-54909-3 MSD - DL	MW-5	Total/NA	Water	8260B	
600-54909-4	MW-11	Total/NA	Water	8260B	
600-54909-5	MW-10	Total/NA	Water	8260B	
600-54909-6	MW-8	Total/NA	Water	8260B	
600-54909-7	DUP-2	Total/NA	Water	8260B	
LCS 600-79279/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79279/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	8260B	
600-54909-2	DUP-1	Total/NA	Water	8260B	
600-54909-3	MW-5	Total/NA	Water	8260B	
600-54909-3 MS	MW-5	Total/NA	Water	8260B	
600-54909-3 MSD	MW-5	Total/NA	Water	8260B	
LCS 600-79300/5	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79300/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-10	TRIP BLANK	Total/NA	Water	8260B	
LCS 600-79383/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79383/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-8	MW-7	Total/NA	Water	8260B	10c As
600-54909-8 MS	MW-7	Total/NA	Water	8260B	
600-54909-8 MSD	MW-7	Total/NA	Water	8260B	
600-54909-9	MW-6	Total/NA	Water	8260B	
600-54909-9 - DL	MW-6	Total/NA	Water	8260B	
LCS 600-79394/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79394/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 79421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	3510C	* 6
600-54909-2	DUP-1	Total/NA	Water	3510C	
600-54909-3	MW-5	Total/NA	Water	3510C	
600-54909-3 MS	MW-5	Total/NA	Water	3510C	
600-54909-3 MSD	MW-5	Total/NA	Water	3510C	
600-54909-4	MW-11	Total/NA	Water	3510C	
600-54909-5	MW-10	Total/NA	Water	3510C	
600-54909-6	MW-8	Total/NA	Water	3510C	
600-54909-7	DUP-2	Total/NA	Water	3510C	
600-54909-8	MW-7	Total/NA	Water	3510C	
600-54909-8 MS	MW-7	Total/NA	Water	3510C	
600-54909-8 MSD	MW-7	Total/NA	Water	3510C	

QC Association Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

GC/MS Semi VOA (Continued)

Prep Batch: 79421 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-9	MW-6	Total/NA	Water	3510C	
600-54909-9 - DL	MW-6	Total/NA	Water	3510C	
LCS 600-79421/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-79421/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 79549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-79421/2-A	Lab Control Sample	Total/NA	Water	8270C LL	79421
MB 600-79421/1-A	Method Blank	Total/NA	Water	8270C LL	79421

Analysis Batch: 79705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	8270C LL	79421
600-54909-2	DUP-1	Total/NA	Water	8270C LL	79421
600-54909-3	MW-5	Total/NA	Water	8270C LL	79421
600-54909-3 MS	MW-5	Total/NA	Water	8270C LL	79421
600-54909-3 MSD	MW-5	Total/NA	Water	8270C LL	79421
600-54909-4	MW-11	Total/NA	Water	8270C LL	79421
600-54909-5	MW-10	Total/NA	Water	8270C LL	79421
600-54909-6	MW-8	Total/NA	Water	8270C LL	79421
600-54909-7	DUP-2	Total/NA	Water	8270C LL	79421
600-54909-8	MW-7	Total/NA	Water	8270C LL	79421
600-54909-8 MS	MW-7	Total/NA	Water	8270C LL	79421
600-54909-8 MSD	MW-7	Total/NA	Water	8270C LL	79421
600-54909-9	MW-6	Total/NA	Water	8270C LL	79421

Analysis Batch: 79750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-9 - DL	MW-6	Total/NA	Water	8270C LL	79421

GC Semi VOA

Prep Batch: 79551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	TX_1005_W_Pr	
				ер	
600-54909-2	DUP-1	Total/NA	Water	TX_1005_W_Pr	
				ер	
600-54909-3	MW-5	Total/NA	Water	TX_1005_W_Pr	
	sakondikan kanda tongan pakinakondi kin			ер	
600-54909-3 MS	MW-5	Total/NA	Water	TX_1005_W_Pr	
				ер	
600-54909-3 MSD	MW-5	Total/NA	Water	TX_1005_W_Pr	
000 54000 4	1004	T-1-1/01A	NA/-1	ер	
600-54909-4	MW-11	Total/NA	Water	TX_1005_W_Pr	
000 F4000 F	NW 40	T-4-1/NA	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	ep	
600-54909-5	MW-10	Total/NA	Water	TX_1005_W_Pr	
600-54909-6	MW-8	Total/NA	Water	ep	
000-04909-0	IVIVV-0	TOTAI/NA	vvaler	TX_1005_W_Pr	
600-54909-7	DUP-2	Total/NA	Water	ep	
000-34909-7	DOF-2	Iotal/NA	vvalei	TX_1005_W_Pr	
600-54909-8	MW-7	Total/NA	Water	ep TX_1005_W_Pr	
JUU U-3U3-U	191 9 V - 1	IO(a)/NA	vvalei		
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Client: Pastor, Behling & Wheeler LLC Project/Site: R&H Oil

GC Semi VOA (Continued)

Prep Batch: 79551 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-8 MS	MW-7	Total/NA	Water	TX_1005_W_Pr	
600-54909-8 MSD	MW-7	Total/NA	Water	ep TX_1005_W_Pr ep	
600-54909-9	MW-6	Total/NA	Water	TX_1005_W_Pr	
LCS 600-79551/2-A	Lab Control Sample	Total/NA	Water	ep TX_1005_W_Pr ep	
MB 600-79551/1-A	Method Blank	Total/NA	Water	TX_1005_W_Pr ep	

Analysis Batch: 79655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	TX 1005	79551
600-54909-2	DUP-1	Total/NA	Water	TX 1005	79551
600-54909-3	MW-5	Total/NA	Water	TX 1005	79551
600-54909-3 MS	MW-5	Total/NA	Water	TX 1005	79551
600-54909-3 MSD	MW-5	Total/NA	Water	TX 1005	79551
600-54909-4	MW-11	Total/NA	Water	TX 1005	79551
600-54909-5	MW-10	Total/NA	Water	TX 1005	79551
600-54909-6	MW-8	Total/NA	Water	TX 1005	79551
600-54909-7	DUP-2	Total/NA	Water	TX 1005	79551
600-54909-8	MW-7	Total/NA	Water	TX 1005	79551
600-54909-8 MS	MW-7	Total/NA	Water	TX 1005	79551
600-54909-8 MSD	MW-7	Total/NA	Water	TX 1005	79551
600-54909-9	MW-6	Total/NA	Water	TX 1005	79551
LCS 600-79551/2-A	Lab Control Sample	Total/NA	Water	TX 1005	79551
MB 600-79551/1-A	Method Blank	Total/NA	Water	TX 1005	79551

Metals

Prep Batch: 79276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
600-54909-1	MW-1	Total/NA	Water	3010A	
600-54909-2	DUP-1	Total/NA	Water	3010A	
600-54909-3	MW-5	Total/NA	Water	3010A	
600-54909-3 DU	MW-5	Total/NA	Water	3010A	
600-54909-3 MS	MW-5	Total/NA	Water	3010A	
600-54909-3 MSD	MW-5	Total/NA	Water	3010A	
600-54909-4	MW-11	Total/NA	Water	3010A	
600-54909-5	MW-10	Total/NA	Water	3010A	
600-54909-6	MW-8	Total/NA	Water	3010A	
600-54909-7	DUP-2	Total/NA	Water	3010A	
600-54909-8	MW-7	Total/NA	Water	3010A	
600-54909-8 DU	MW-7	Total/NA	Water	3010A	
600-54909-8 MS	MW-7	Total/NA	Water	3010A	
600-54909-8 MSD	MW-7	Total/NA	Water	3010A	
600-54909-9	MW-6	Total/NA	Water	3010A	
LCS 600-79276/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 600-79276/1-A	Method Blank	Total/NA	Water	3010A	

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TestAmerica Houston 7/18/2012

QC Association Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Metals (Continued)

Prep Batch: 79339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	7470A	
600-54909-2	DUP-1	Total/NA	Water	7470A	
600-54909-3	MW-5	Total/NA	Water	7470A	
600-54909-3 MS	MW-5	Total/NA	Water	7470A	
600-54909-3 MSD	MW-5	Total/NA	Water	7470A	
600-54909-4	MW-11	Total/NA	Water	7470A	
600-54909-5	MW-10	Total/NA	Water	7470A	
600-54909-6	MW-8	Total/NA	Water	7470A	
600-54909-7	DUP-2	Total/NA	Water	7470A	
600-54909-8	MW-7	Total/NA	Water	7470A	
600-54909-8 MS	MW-7	Total/NA	Water	7470A	
600-54909-8 MSD	MW-7	Total/NA	Water	7470A	
600-54909-9	MW-6	Total/NA	Water	7470A	
LCS 600-79339/8-A	Lab Control Sample	Total/NA	Water	7470A	
MB 600-79339/7-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 79370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	6010B	79276
600-54909-2	DUP-1	Total/NA	Water	6010B	79276
600-54909-3	MW-5	Total/NA	Water	6010B	79276
600-54909-3 DU	MW-5	Total/NA	Water	6010B	79276
600-54909-3 MS	MW-5	Total/NA	Water	6010B	79276
600-54909-3 MSD	MW-5	Total/NA	Water	6010B	79276
600-54909-4	MW-11	Total/NA	Water	6010B	79276
600-54909-5	MW-10	Total/NA	Water	6010B	79276
600-54909-6	MW-8	Total/NA	Water	6010B	79276
600-54909-7	DUP-2	Total/NA	Water	6010B	79276
600-54909-8	MW-7	Total/NA	Water	6010B	79276
600-54909-8 DU	MW-7	Total/NA	Water	6010B	79276
600-54909-8 MS	MW-7	Total/NA	Water	6010B	79276
600-54909-8 MSD	MW-7	Total/NA	Water	6010B	79276
600-54909-9	MW-6	Total/NA	Water	6010B	79276
LCS 600-79276/2-A	Lab Control Sample	Total/NA	Water	6010B	79276
MB 600-79276/1-A	Method Blank	Total/NA	Water	6010B	79276

Analysis Batch: 79402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	7470A	79339
600-54909-2	DUP-1	Total/NA	Water	7470A	79339
600-54909-3	MW-5	Total/NA	Water	7470A	79339
600-54909-3 MS	MW-5	Total/NA	Water	7470A	79339
600-54909-3 MSD	MW-5	Total/NA	Water	7470A	79339
600-54909-4	MW-11	Total/NA	Water	7470A	79339
600-54909-5	MW-10	Total/NA	Water	7470A	79339
600-54909-6	MW-8	Total/NA	Water	7470A	79339
600-54909-7	DUP-2	Total/NA	Water	7470A	79339
600-54909-8	MW-7	Total/NA	Water	7470A	79339
600-54909-8 MS	MW-7	Total/NA	Water	7470A	79339
600-54909-8 MSD	MW-7	Total/NA	Water	7470A	79339
600-54909-9	MW-6	Total/NA	Water	7470A	79339
LCS 600-79339/8-A	Lab Control Sample	Total/NA	Water	7470A	79339

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QC Association Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Metals (Continued)

Analysis Batch: 79402 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-79339/7-A	Method Blank	Total/NA	Water	7470A	79339

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Project/Site: R&H Oil

Lab Sample ID: 600-54909-1

Matrix: Water

Date Collected: 05/11/12 07:15 Date Received: 05/12/12 09:42

Client Sample ID: MW-1

Client: Pastor, Behling & Wheeler LLC

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79300	05/15/12 20:47	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 10:40	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 18:06	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 10:56	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 12:52	SRP	TAL HOU

Client Sample ID: DUP-1 Lab Sample ID: 600-54909-2

Date Collected: 05/11/12 07:15 Matrix: Water

Date Received: 05/12/12 09:42

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79300	05/15/12 21:16	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 11:06	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 18:41	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 10:58	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 12:54	SRP	TAL HOU

Client Sample ID: MW-5 Lab Sample ID: 600-54909-3

Date Collected: 05/11/12 08:15

Date Received: 05/12/12 09:42

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	50	79279	05/15/12 04:23	DT	TAL HOU
Total/NA	Analysis	8260B		5	79300	05/15/12 15:05	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		5	79705	05/18/12 11:32	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 19:16	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:01	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 12:56	SRP	TAL HOU

TestAmerica Houston 7/18/2012

Matrix: Water

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Lab Sample ID: 600-54909-4

Matrix: Water

Date Collected: 05/11/12 09:20 Date Received: 05/12/12 09:42

Client Sample ID: MW-11

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 02:58	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 12:52	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 20:59	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:10	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 13:01	SRP	TAL HOU

Client Sample ID: MW-10 Lab Sample ID: 600-54909-5

Date Collected: 05/11/12 10:30

Date Received: 05/12/12 09:42

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 06:17	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 13:18	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 21:34	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:19	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 13:03	SRP	TAL HOU

Client Sample ID: MW-8 Lab Sample ID: 600-54909-6

Date Collected: 05/11/12 11:30

Date Received: 05/12/12 09:42

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 06:45	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 13:45	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 22:09	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:22	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 13:09	SRP	TAL HOU

Matrix: Water

Matrix: Water

TestAmerica Houston 7/18/2012

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Lab Sample ID: 600-54909-7

Matrix: Water

Client Sample ID: DUP-2 Date Collected: 05/11/12 11:30

Date Received: 05/12/12 09:42

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			79279	05/15/12 05:48	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 14:11	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 23:19	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:24	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 13:11	SRP	TAL HOU

Lab Sample ID: 600-54909-8

Client Sample ID: MW-7

Date Collected: 05/11/12 12:30 Matrix: Water Date Received: 05/12/12 09:42

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	S 6	1	79394	05/16/12 14:21	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 09:22	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 23:55	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:27	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 13:13	SRP	TAL HOU

Client Sample ID: MW-6 Lab Sample ID: 600-54909-9

Matrix: Water Date Collected: 05/11/12 13:30 Date Received: 05/12/12 09:42

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	- 8 (*	50	79394	05/16/12 18:38	DT	TAL HOU
Total/NA	Analysis	8260B	DL	1000	79394	05/16/12 19:07	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		5	79705	05/18/12 14:37	JH	TAL HOU
Total/NA	Prep	3510C	DL		79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	79750	05/21/12 13:06	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/19/12 01:39	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:36	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 13:18	SRP	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC

Client Sample ID: TRIP BLANK

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Lab Sample ID: 600-54909-10

Matrix: Water

Date Collected: 05/11/12 00:00 Date Received: 05/12/12 09:42

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79383	05/16/12 01:23	DT	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Houston	Arkansas DEQ	State Program	6	88-0759
TestAmerica Houston	Oklahoma	State Program	6	9503
TestAmerica Houston	Texas	NELAC	6	T104704223-10-6-TX
TestAmerica Houston	USDA	Federal		P330-08-00217
TestAmerica Houston	Utah	NELAC	8	GULF

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

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Method Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
7470A	Mercury (CVAA)	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TCEQ = Texas Commission of Environmental Quality

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Sample Summary

Client: Pastor, Behling & Wheeler LLC

Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-54909-1	MW-1	Water	05/11/12 07:15	05/12/12 09:42
600-54909-2	DUP-1	Water	05/11/12 07:15	05/12/12 09:42
600-54909-3	MW-5	Water	05/11/12 08:15	05/12/12 09:42
600-54909-4	MW-11	Water	05/11/12 09:20	05/12/12 09:42
600-54909-5	MW-10	Water	05/11/12 10:30	05/12/12 09:42
600-54909-6	MW-8	Water	05/11/12 11:30	05/12/12 09:42
600-54909-7	DUP-2	Water	05/11/12 11:30	05/12/12 09:42
600-54909-8	MW-7	Water	05/11/12 12:30	05/12/12 09:42
600-54909-9	MW-6	Water	05/11/12 13:30	05/12/12 09:42
600-54909-10	TRIP BLANK	Water	05/11/12 00:00	05/12/12 09:42

TestAmulica Houston

6310 Rothway Street Houston, TX 77040

Chain of Custody Record



Phone (713) 690-4444 Fax (713) 690-5646 Lab PM: Kudchadkar, Sachin G Carrier Tracking No(s): COC No: Client Information 600-9060.1 Client Contact: Mr. Tim Nickels sachin.kudcnadkar@testamericainc.com Page of Company: Job#: **Analysis Requested** Pastor, Behling & Wheeler LLC Due Date Requested: Preservation Codes: 2201 Double Creek Dr Suite 4004 A - HCL M - Hexane TAT Requested (days): B - NaOH N - None Round Rock C - Zn Acetate 0-AsNa02 D - Nitric Acid P - Na204S State, Zip: E - NaHSO4 Q - Na2SO3 TX. 78664 F - MeOH R - Na2S2SO3 Phone: G - Amchior S - H2SO4 512-671-3434(Tel) 512-671-3446(Fax) H - Ascorbic Acid T - TSP Dodecahydrate WO #: 1-lce U - Acetone Perform MS/MSD (Yes or No) J - DI Water V-MCAA tim.nickels@pbwllc.com Total Number of containers K-EDTA W - ph 4-5 Project #: Projec: Name: L-EDA Z - other (specify) 60002002 R&H Oil Other: 3260B_LL - VOC San Antonio Matrix Sample Page (W=water. Type S-solld. Sample (C=comp. Orwastaloli, G=grab) BT=Tissue, A=Air) Sample Identification Sample Date Time Special Instructions/Note: Preservation Code: W 1330 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Possible Hazard Identification Disposal By Lab Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological Return To Client Months Deliverable Requested: I. II, III, IV, Other (specify) Special Instructions/QC Requirements: Time: Method of Shipment Empty Kit Relinquished by: Date: Relinquished by Received by: Receiver Relinquished by Cate/Time Company Datc/Time: Company Relinquished by: Received by: Company Custody Spale Intact: | Custody Seal No.: n hier Tems graturese C and Oher Remaiks:

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7/18/2012

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of 94

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC Job Number: 600-54909-1

Login Number: 54909 List Source: TestAmerica Houston

List Number: 1

Creator: Trenery, Michael J

Creator: Irenery, Michael J		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.1 3.8 6.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
	_	

True

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Residual Chlorine Checked.

EA Project No.: 14342.74 September 2012

ATTACHMENT 8

EPA LAB DATA REPORTS (Only on compact disc)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Laboratory

Environmental Services Branch 10625 Fallstone Road, Houston, TX 77099 Phone: (281)983-2100 Fax: (281)983-2248

Final Analytical Report

Site NameR & H Oil / Tropicana
Sample Collection Date(s) 05/08/12 - 05/09/12
Contact Chris Villarreal (6SF-RA)
Report Date07/30/12
Project # 12SF105
Work Order(s)1205004

Analyses included in this report:

Air TO-15(SIM/Scan) dual units

Report Narrative

The "B" flag for trichloroethene in samples 1205004-05 and 1205004-07 are required because the concentrations found in these samples were less than ten times the concentration found in the associated analysis blank.

The "J" flag for acetone in sample 1205004-02 is required because its concentration, 21.7 ppbv, exceeded the upper calibration limit of 20.0 ppbv. This is a small amount over the limit and no bias is expected.

Two samples, 1205004-02 and 1205004-03, had so much interference that substantial dilutions had to be made in order to analyze them.

Two samples, 1205004-01 and 1205004-05, arrived in the lab with so little sample, as indicated by their initial pressures, that a dilution had to be performed before analysis.

Standard procedures for quality reporting of the sample results. should only be reproduced in full	The results apply only		
Reporting limits are adjusted for	sample size and matrix i	nterference.	
Report Approvals:			
Richard McMillin Region 6 Laboratory Manager		David Neleigh Region 6 Laboratory Bra	anch Chief

ONITED STATES

Please provide a reason for holding:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Environmental Services Branch Laboratory

10625 Fallstone Road Houston, Texas 77099

Sample Receipt and Disposal

Site Name: R & H Oil / Tropicana	Project Number: 12SF105
Data Management Coordinator: Christy Warren	/ /
Data Management Coordinator Signature	Date
Date Transmitted:/	
Please have the U.S. EPA Project Manager/Office comments or questions.	er call the Data Management Coordinator at 3-2137 for any
Please sign and date this form below and return it	with any comments to:
Christy Warren Data Management Coordinator Region 6 Laboratory 6MD-HS	
	/
Received by and Date	
Comments:	
The laboratory routinely disposes of samples 90 d hold these samples in custody longer than 90 days	lays after all analyses have been completed. If you have a need to s, please sign below.
Signature	Date



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
SG-14	1205004-01	air	5/8/12 17:16	05/14/12 09:15
SG-19	1205004-02	air	5/9/12 18:43	05/14/12 09:15
SG-19-D	1205004-03	air	5/9/12 18:43	05/14/12 09:15
SG-21	1205004-04	air	5/8/12 14:29	05/14/12 09:15
SG-22	1205004-05	air	5/8/12 15:29	05/14/12 09:15
SS-2	1205004-06	air	5/8/12 16:19	05/14/12 09:15
TB-1-Air	1205004-07	air	5/8/12 18:00	05/14/12 09:15

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

1205004-01 Station ID: SG-14 Lab ID:

Batch: B2E1401 Date Collected: 05/08/12 Initial Pressure: 1.9 psia Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	3.63		90.8	70-130	05/14/12 05/27/12

Targets

	Reporting Result Analyte Limit							
Analyte (CAS Number)		esuit μg/m ³	Analyte Qualifiers	ppbv	mι μg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		12,500	29,800	5000	05/14/12	05/27/12
Acrolein (107-02-8)	U	U		2,500	5,740	"	"	"
Benzene (71-43-2)	136,000	435,000		2,500	8,000	50000	"	"
Benzyl chloride (100-44-7)	U	U		2,500	13,000	5000	"	"
1,3-Butadiene (106-99-0)	U	U		1,250	2,770	"	"	"
2-Butanone (78-93-3)	U	U		5,000	14,800	"	"	"
Bromodichloromethane (75-27-4)	U	U		1,250	8,390	"	"	"
Bromoform (75-25-2)	U	U		1,250	12,900	"	"	"
Bromomethane (74-83-9)	U	U		1,250	4,860	"	"	"
Carbon disulfide (75-15-0)	U	U		1,250	3,900	"	"	"
Carbon tetrachloride (56-23-5)	U	U		1,250	7,880	"	"	"
Chlorobenzene (108-90-7)	U	U		1,250	5,770	"	"	"
Chlorodibromomethane (124-48-1)	U	U		1,250	10,700	"	"	"
Chloroethane (75-00-3)	U	U		1,250	3,310	"	"	"
Chloroform (67-66-3)	U	U		250	1,220	"	"	"
Chloromethane (74-87-3)	U	U		1,250	2,590	"	"	"
Cyclohexane (110-82-7)	562,000	1.94E6		12,500	43,100	50000	"	"
1,2-Dibromoethane (106-93-4)	U	U		1,250	9,630	5000	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		1,250	7,530	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		1,250	7,530	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		1,250	7,530	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		1,250	6,190	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		1,250	5,070	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		1,250	5,070	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		1,250	4,970	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		1,250	4,970	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		1,250	4,970	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		1,250	5,790	"	"	"

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-01 Station ID: SG-14

Batch: B2E1401 Date Collected: 05/08/12 Initial Pressure: 1.9 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	Reporting Result Analyte Limit							
Analyte (CAS Number)		μg/m³	Qualifiers	ppbv	μg/m³	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U	U		1,250	5,680	5000	05/14/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		1,250	5,680	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		1,250	8,760	"	"	"
1,4-Dioxane (123-91-1)	U	U		5,000	18,100	"	"	"
Ethyl acetate (141-78-6)	U	U		2,500	9,030	"	"	"
Ethyl alcohol (64-17-5)	U	U		5,000	9,440	"	"	"
Ethylbenzene (100-41-4)	U	U		1,250	5,430	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		1,250	6,150	"	"	"
n-Heptane (142-82-5)	2,550	10,500		1,250	5,130	"	"	05/27/12
Hexachlorobutadiene (87-68-3)	U	U		1,250	13,400	"	"	05/27/12
n-Hexane (110-54-3)	35,200	124,000		1,250	4,410	"	"	05/27/12
2-Hexanone (591-78-6)	U	U		2,500	10,300	"	"	05/27/12
Isopropyl alcohol (67-63-0)	U	U		25,000	61,600	"	"	"
Methylene chloride (75-09-2)	U	U		1,250	4,350	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		2,500	10,300	"	"	"
Methyl methacrylate (80-62-6)	U	U		1,250	5,130	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		1,250	4,510	"	"	"
Propene (115-07-1)	19,700	34,000		1,250	2,160	"	"	05/27/12
Styrene (100-42-5)	U	U		1,250	5,340	"	"	05/27/12
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		1,250	8,600	"	"	"
Tetrachloroethene (127-18-4)	U	U		250	1,700	"	"	"
Tetrahydrofuran (109-99-9)	U	U		1,250	3,690	"	"	"
Toluene (108-88-3)	U	U		1,250	4,720	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		1,250	9,300	"	"	05/27/12
1,1,1-Trichloroethane (71-55-6)	U	U		1,250	6,840	"	"	05/27/12
1,1,2-Trichloroethane (79-00-5)	U	U		1,250	6,840	"	"	"
Trichloroethene (79-01-6)	U	U		250	1,350	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		1,250	7,040	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		1,250	9,600	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	4,000	19,700		1,250	6,160	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		1,250	6,160	"	"	"

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-01 Station ID: SG-14

Batch: B2E1401 Date Collected: 05/08/12 Initial Pressure: 1.9 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Ro ppbv	esult µg/m³	Analyte Qualifiers	-	orting nit µg/m³	Dilution	Prepared	Analyzed
Vinyl acetate (108-05-4)	U	U		2,500	8,820	5000	05/14/12	05/27/12
Vinyl chloride (75-01-4)	U	U		250	640	"	"	"
meta-/para-Xylene (na)	3,350	14,600		1,250	5,440	"	"	05/27/12
ortho-Xylene (95-47-6)	U	U		1,250	5,430	"	"	05/27/12
								F

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-02 Station ID: SG-19

Batch: B2E1504 Date Collected: 05/09/12 Initial Pressure: 11.5 psia Sample Type: air Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	3.96		99.0	70-130	05/15/12 05/26/12

Targets

	n	Reporting Result Analyte Limit									
Analyte (CAS Number)		esult µg/m³	Analyte Qualifiers	L11 ppbv	mit µg/m³	Dilution	Prepared	Analyzed			
Acetone (67-64-1)	29.6	70.3	J	3.41	8.11	1.362398	05/15/12	05/26/12			
Acrolein (107-02-8)	U	U	Ū	0.68	1.57	"	"	"			
Benzene (71-43-2)	3.41	10.9		0.07	0.22	"	"	"			
Benzyl chloride (100-44-7)	U	U		0.68	3.53	"	"	"			
1,3-Butadiene (106-99-0)	U	U		0.34	0.76	"	"	"			
2-Butanone (78-93-3)	5.18	15.3		1.36	4.02	"	"	"			
Bromodichloromethane (75-27-4)	U	U		0.34	2.29	"	"	"			
Bromoform (75-25-2)	U	U		0.34	3.53	"	"	"			
Bromomethane (74-83-9)	U	U		0.34	1.33	"	"	"			
Carbon disulfide (75-15-0)	U	U		2.50	7.80	10	"	05/26/12			
Carbon tetrachloride (56-23-5)	U	U		0.34	2.15	1.362398	"	05/26/12			
Chlorobenzene (108-90-7)	U	U		2.50	11.5	10	"	05/26/12			
Chlorodibromomethane (124-48-1)	U	U		0.34	2.91	1.362398	"	05/26/12			
Chloroethane (75-00-3)	U	U		0.34	0.90	"	"	"			
Chloroform (67-66-3)	U	U		0.07	0.33	"	"	"			
Chloromethane (74-87-3)	U	U		0.34	0.70	"	"	"			
Cyclohexane (110-82-7)	8.72	30.1		0.34	1.18	"	"	"			
1,2-Dibromoethane (106-93-4)	U	U		0.34	2.62	"	"	"			
1,2-Dichlorobenzene (95-50-1)	U	U		0.34	2.05	"	"	"			
1,3-Dichlorobenzene (541-73-1)	U	U		0.34	2.05	"	"	"			
1,4-Dichlorobenzene (106-46-7)	U	U		0.34	2.05	"	"	"			
Dichlorodifluoromethane (75-71-8)	U	U		0.34	1.69	"	"	"			
1,1-Dichloroethane (75-34-3)	U	U		0.34	1.38	"	"	"			
1,2-Dichloroethane (107-06-2)	U	U		0.34	1.38	"	"	"			
1,1-Dichloroethene (75-35-4)	U	U		0.34	1.35	"	"	"			
cis-1,2-Dichloroethene (156-59-2)	U	U		0.34	1.35	"	"	"			
trans-1,2-Dichloroethene (156-60-5)	U	U		0.34	1.35	"	"	"			
1,2-Dichloropropane (78-87-5)	U	U		0.34	1.58	"	"	"			

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-02 Station ID: SG-19

Batch: B2E1504 Date Collected: 05/09/12 Initial Pressure: 11.5 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	т.	1,	A 1 .	-	orting			
Analyta (CAS Number)		esult μg/m³	Analyte Qualifiers	Lir ppbv	nit μg/m³	Dilution	Drangrad	Analyzed
Analyte (CAS Number)			Quaimers				-	•
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.34	1.55	1.362398	05/15/12	05/26/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.34	1.55	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.34	2.39	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.36	4.92	"	"	"
Ethyl acetate (141-78-6)	U	U		0.68	2.46	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.36	2.57	"	"	"
Ethylbenzene (100-41-4)	U	U		0.34	1.48	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.34	1.68	"	"	"
n-Heptane (142-82-5)	U	U		0.34	1.40	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.34	3.64	"	"	"
n-Hexane (110-54-3)	0.48	1.68		0.34	1.20	"	"	"
2-Hexanone (591-78-6)	U	U		0.68	2.80	"	"	"
Isopropyl alcohol (67-63-0)	6,950	17,100		2,500	6,160	500	"	05/27/12
Methylene chloride (75-09-2)	U	U		2.50	8.70	10	"	05/26/12
4-Methyl-2-pentanone (108-10-1)	U	U		0.68	2.79	1.362398	"	05/26/12
Methyl methacrylate (80-62-6)	U	U		0.34	1.40	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.34	1.23	"	"	"
Propene (115-07-1)	0.86	1.48		0.34	0.59	"	"	"
Styrene (100-42-5)	U	U		0.34	1.45	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.34	2.34	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.07	0.46	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.34	1.01	"	"	"
Toluene (108-88-3)	0.86	3.24		0.34	1.29	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.34	2.53	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.34	1.86	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.34	1.86	"	"	"
Trichloroethene (79-01-6)	U	U		0.07	0.37	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.34	1.92	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.34	2.62	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	0.59	2.89		0.34	1.68	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.34	1.68	"	"	"
Vinyl acetate (108-05-4)	U	U		0.68	2.40	"	"	"

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10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-02 Station ID: SG-19

Batch: B2E1504 Date Collected: 05/09/12 Initial Pressure: 11.5 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	R	esult	Analyte	Repo Lir	orting nit			
Analyte (CAS Number)	ppbv	$\mu g/m^3$	Qualifiers	ppbv	μg/m³	Dilution	Prepared	Analyzed
Vinyl chloride (75-01-4)	U	U		0.07	0.17	1.362398	05/15/12	05/26/12
meta-/para-Xylene (na)	0.68	2.96		0.34	1.48	"	"	"
ortho-Xylene (95-47-6)	U	U		0.34	1.48	"	"	"

F.

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-03 Station ID: SG-19-D

Batch: B2E1504 Date Collected: 05/09/12 Initial Pressure: 11.5 psia Sample Type: air Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	4.11		103	70-130	05/15/12 05/26/12

Targets

					orting			
		esult	Analyte	Liı		~		, , .
Analyte (CAS Number)	ppov	$\mu g/m^3$	Qualifiers	ppbv	μg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	47.4	113		25.0	59.5	10	05/15/12	05/26/12
Acrolein (107-02-8)	U	U		0.65	1.50	1.302083	"	05/26/12
Benzene (71-43-2)	0.59	1.88		0.07	0.21	"	"	"
Benzyl chloride (100-44-7)	U	U		0.65	3.38	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.33	0.72	"	"	"
2-Butanone (78-93-3)	8.53	25.2		1.30	3.85	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.33	2.19	"	"	"
Bromoform (75-25-2)	U	U		0.33	3.37	"	"	"
Bromomethane (74-83-9)	U	U		0.33	1.27	"	"	"
Carbon disulfide (75-15-0)	U	U		0.33	1.02	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.33	2.05	"	"	"
Chlorobenzene (108-90-7)	U	U		2.50	11.5	10	"	05/26/12
Chlorodibromomethane (124-48-1)	U	U		0.33	2.78	1.302083	"	05/26/12
Chloroethane (75-00-3)	U	U		0.33	0.86	"	"	"
Chloroform (67-66-3)	U	U		0.07	0.32	"	"	"
Chloromethane (74-87-3)	U	U		0.33	0.67	"	"	"
Cyclohexane (110-82-7)	3.32	11.5		0.33	1.12	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.33	2.51	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.33	1.96	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		0.33	1.96	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		0.33	1.96	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.33	1.61	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.33	1.32	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.33	1.32	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.33	1.29	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.33	1.29	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.33	1.29	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		125	579	500	"	05/27/12

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-03 Station ID: SG-19-D

Batch: B2E1504 Date Collected: 05/09/12 Initial Pressure: 11.5 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	ъ	Reporting Result Analyte Limit							
Analyte (CAS Number)		esult µg/m³	Analyte Qualifiers	Lii ppbv	nit μg/m³	Dilution	Prepared	Analyzed	
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.33	1.48	1.302083	05/15/12	05/26/12	
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.33	1.48	"	"	"	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	U	U		0.33	2.28	"	"	"	
(76-14-2)		C							
1,4-Dioxane (123-91-1)	U	U		1.30	4.70	"	"	"	
Ethyl acetate (141-78-6)	U	U		0.65	2.35	"	"	"	
Ethyl alcohol (64-17-5)	U	U		500	944	500	"	05/27/12	
Ethylbenzene (100-41-4)	U	U		0.33	1.42	1.302083	"	05/26/12	
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.33	1.60	"	"	"	
n-Heptane (142-82-5)	U	U		0.33	1.34	"	"	"	
Hexachlorobutadiene (87-68-3)	U	U		0.33	3.48	"	"	"	
n-Hexane (110-54-3)	0.74	2.62		0.33	1.15	"	"	"	
2-Hexanone (591-78-6)	U	U		0.65	2.67	"	"	"	
Isopropyl alcohol (67-63-0)	7,220	17,800		2,500	6,160	500	"	05/27/12	
Methylene chloride (75-09-2)	U	U		2.50	8.70	10	"	05/26/12	
4-Methyl-2-pentanone (108-10-1)	U	U		0.65	2.67	1.302083	"	05/26/12	
Methyl methacrylate (80-62-6)	U	U		0.33	1.34	"	"	"	
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.33	1.18	"	"	"	
Propene (115-07-1)	U	U		0.33	0.56	"	"	"	
Styrene (100-42-5)	U	U		0.33	1.39	"	"	"	
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.33	2.24	"	"	"	
Tetrachloroethene (127-18-4)	U	U		0.07	0.44	"	"	"	
Tetrahydrofuran (109-99-9)	U	U		0.33	0.96	"	"	"	
Toluene (108-88-3)	0.95	3.59		0.33	1.23	"	"	"	
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.33	2.42	"	"	"	
1,1,1-Trichloroethane (71-55-6)	U	U		0.33	1.78	"	"	"	
1,1,2-Trichloroethane (79-00-5)	U	U		0.33	1.78	"	"	"	
Trichloroethene (79-01-6)	U	U		0.07	0.35	"	"	"	
Trichlorofluoromethane (75-69-4)	U	U		0.33	1.83	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.33	2.50	"	"	"	
1,2,4-Trimethylbenzene (95-63-6)	0.48	2.37		0.33	1.60	"	"	"	
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.33	1.60	"	"	"	

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-03 Station ID: SG-19-D

Batch: B2E1504 Date Collected: 05/09/12 Initial Pressure: 11.5 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	Re	esult	Analyte	Repo Lir	orting nit			
Analyte (CAS Number)	ppbv	$\mu g/m^3$	Qualifiers	ppbv	$\mu g/m^3$	Dilution	Prepared	Analyzed
Vinyl acetate (108-05-4)	U	U		0.65	2.30	1.302083	05/15/12	05/26/12
Vinyl chloride (75-01-4)	0.10	0.27		0.07	0.17	"	"	"
meta-/para-Xylene (na)	0.62	2.72		0.33	1.42	"	"	"
ortho-Xylene (95-47-6)	U	U		0.33	1.42	"	"	"

F.

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-04 Station ID: SG-21

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 11.4 psia Sample Type: air Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	4.13		103	70-130	05/15/12 05/27/12

Targets

					orting			
		esult	Analyte	Lir		D'I d'	D 1	A 1 1
Analyte (CAS Number)	ppov	$\mu g/m^3$	Qualifiers	ppbv	μg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		25.0	59.5	10	05/15/12	05/27/12
Acrolein (107-02-8)	U	U		5.00	11.5	"	"	"
Benzene (71-43-2)	18.9	60.5		0.50	1.60	"	"	"
Benzyl chloride (100-44-7)	U	U		5.00	25.9	"	"	"
1,3-Butadiene (106-99-0)	U	U		2.50	5.54	"	"	"
2-Butanone (78-93-3)	U	U		10.0	29.5	"	"	"
Bromodichloromethane (75-27-4)	U	U		2.50	16.8	"	"	"
Bromoform (75-25-2)	U	U		2.50	25.9	"	"	"
Bromomethane (74-83-9)	U	U		2.50	9.73	"	"	"
Carbon disulfide (75-15-0)	5.60	17.5		2.50	7.80	"	"	"
Carbon tetrachloride (56-23-5)	U	U		2.50	15.8	"	"	"
Chlorobenzene (108-90-7)	U	U		2.50	11.5	"	"	"
Chlorodibromomethane (124-48-1)	U	U		2.50	21.3	"	"	"
Chloroethane (75-00-3)	U	U		2.50	6.61	"	"	"
Chloroform (67-66-3)	U	U		0.50	2.45	"	"	"
Chloromethane (74-87-3)	U	U		2.50	5.17	"	"	"
Cyclohexane (110-82-7)	54.9	189		2.50	8.63	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		2.50	19.3	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		2.50	15.1	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		2.50	15.1	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		2.50	15.1	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		2.50	12.4	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		2.50	10.1	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		2.50	10.1	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		2.50	9.93	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		2.50	9.93	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		2.50	9.93	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		2.50	11.6	"	"	"

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10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-04 Station ID: SG-21

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 11.4 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	ת	a a v 14	A = 14-		orting			
Analyte (CAS Number)		esult µg/m³	Analyte Qualifiers	Lir ppbv	mit µg/m³	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U	U		2.50	11.4	10	05/15/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		2.50	11.4	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane	U	U		2.50	17.5	"	"	"
(76-14-2)		C						
1,4-Dioxane (123-91-1)	U	U		10.0	36.1	"	"	"
Ethyl acetate (141-78-6)	U	U		5.00	18.1	"	"	"
Ethyl alcohol (64-17-5)	U	U		10.0	18.9	"	"	"
Ethylbenzene (100-41-4)	9.80	42.6		2.50	10.9	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		2.50	12.3	"	"	"
n-Heptane (142-82-5)	U	U		2.50	10.3	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		2.50	26.7	"	"	"
n-Hexane (110-54-3)	U	U		2.50	8.82	"	"	"
2-Hexanone (591-78-6)	U	U		5.00	20.5	"	"	"
Isopropyl alcohol (67-63-0)	135	333		50.0	123	"	"	"
Methylene chloride (75-09-2)	U	U		2.50	8.70	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		5.00	20.5	"	"	"
Methyl methacrylate (80-62-6)	U	U		2.50	10.3	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		2.50	9.03	"	"	"
Propene (115-07-1)	9.20	15.9		2.50	4.31	"	"	"
Styrene (100-42-5)	U	U		2.50	10.7	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		2.50	17.2	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.50	3.40	"	"	"
Tetrahydrofuran (109-99-9)	U	U		2.50	7.38	"	"	"
Toluene (108-88-3)	5.40	20.4		2.50	9.44	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		2.50	18.6	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		2.50	13.7	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		2.50	13.7	"	"	"
Trichloroethene (79-01-6)	U	U		0.50	2.69	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		2.50	14.1	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		2.50	19.2	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	U	U		2.50	12.3	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		2.50	12.3	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-04 Station ID: SG-21

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 11.4 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Re ppbv	esult µg/m³	Analyte Qualifiers		orting mit µg/m³	Dilution	Prepared	Analyzed
Vinyl acetate (108-05-4)	U	U		5.00	17.6	10	05/15/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.50	1.28	"	"	"
meta-/para-Xylene (na)	2.80	12.2		2.50	10.9	"	"	"
ortho-Xylene (95-47-6)	U	U		2.50	10.9	"	"	"
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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-05 Station ID: SG-22

Batch: B2E1401 Date Collected: 05/08/12 Initial Pressure: 8.5 psia Sample Type: air Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	3.61		90.2	70-130	05/14/12 05/27/12

Targets

	Reporting Result Analyte Limit								
Analyte (CAS Number)		esult µg/m³	Analyte Qualifiers	ppbv	mit µg/m³	Dilution	Prepared	Analyzed	
Acetone (67-64-1)	U	U		2.50	5.95	1	05/14/12	05/27/12	
Acrolein (107-02-8)	U	U		0.50	1.15	"	"	"	
Benzene (71-43-2)	0.06	0.19		0.05	0.16	"	"	"	
Benzyl chloride (100-44-7)	U	U		0.50	2.59	"	"	"	
1,3-Butadiene (106-99-0)	U	U		0.25	0.55	"	"	"	
2-Butanone (78-93-3)	U	U		1.00	2.95	"	"	"	
Bromodichloromethane (75-27-4)	U	U		0.25	1.68	"	"	"	
Bromoform (75-25-2)	U	U		0.25	2.59	"	"	"	
Bromomethane (74-83-9)	U	U		0.25	0.97	"	"	"	
Carbon disulfide (75-15-0)	U	U		0.25	0.78	"	"	"	
Carbon tetrachloride (56-23-5)	U	U		0.25	1.58	"	"	"	
Chlorobenzene (108-90-7)	U	U		0.25	1.15	"	"	"	
Chlorodibromomethane (124-48-1)	U	U		0.25	2.13	"	"	"	
Chloroethane (75-00-3)	U	U		0.25	0.66	"	"	"	
Chloroform (67-66-3)	U	U		0.05	0.24	"	"	"	
Chloromethane (74-87-3)	U	U		0.25	0.52	"	"	"	
Cyclohexane (110-82-7)	U	U		0.25	0.86	"	"	"	
1,2-Dibromoethane (106-93-4)	U	U		0.25	1.93	"	"	"	
1,2-Dichlorobenzene (95-50-1)	U	U		0.25	1.51	"	"	"	
1,3-Dichlorobenzene (541-73-1)	U	U		0.25	1.51	"	"	"	
1,4-Dichlorobenzene (106-46-7)	U	U		0.25	1.51	"	"	"	
Dichlorodifluoromethane (75-71-8)	U	U		0.25	1.24	"	"	"	
1,1-Dichloroethane (75-34-3)	U	U		0.25	1.01	"	"	"	
1,2-Dichloroethane (107-06-2)	U	U		0.25	1.01	"	"	"	
1,1-Dichloroethene (75-35-4)	U	U		0.25	0.99	"	"	"	
cis-1,2-Dichloroethene (156-59-2)	U	U		0.25	0.99	"	"	"	
trans-1,2-Dichloroethene (156-60-5)	U	U		0.25	0.99	"	"	"	
1,2-Dichloropropane (78-87-5)	U	U		0.25	1.16	"	"	"	

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-05 Station ID: SG-22

Batch: B2E1401 Date Collected: 05/08/12 Initial Pressure: 8.5 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	ת	14	A 14-		orting			
Analyte (CAS Number)		esult μg/m³	Analyte Qualifiers	Lir ppbv	mit µg/m³	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		C	0.25	1.14		05/14/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U U		0.25	1.14	1	05/14/12	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane	U	U		0.25	1.75	"	"	"
(76-14-2)								
1,4-Dioxane (123-91-1)	U	U		1.00	3.61	"	"	"
Ethyl acetate (141-78-6)	U	U		0.50	1.81	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.00	1.89	"	"	"
Ethylbenzene (100-41-4)	U	U		0.25	1.09	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.25	1.23	"	"	"
n-Heptane (142-82-5)	U	U		0.25	1.03	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.25	2.67	"	"	"
n-Hexane (110-54-3)	U	U		0.25	0.88	"	"	"
2-Hexanone (591-78-6)	U	U		0.50	2.05	"	"	"
Isopropyl alcohol (67-63-0)	U	U		5.00	12.3	"	"	"
Methylene chloride (75-09-2)	U	U		0.25	0.87	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		0.50	2.05	"	"	"
Methyl methacrylate (80-62-6)	U	U		0.25	1.03	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.25	0.90	"	"	"
Propene (115-07-1)	U	U		0.25	0.43	"	"	"
Styrene (100-42-5)	U	U		0.25	1.07	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.25	1.72	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.05	0.34	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.25	0.74	"	"	"
Toluene (108-88-3)	U	U		0.25	0.94	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.25	1.86	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.25	1.37	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.25	1.37	"	"	"
Trichloroethene (79-01-6)	0.06	0.32	В	0.05	0.27	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.25	1.41	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.25	1.92	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	U	U		0.25	1.23	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.25	1.23	"	"	"
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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-05 Station ID: SG-22

Batch: B2E1401 Date Collected: 05/08/12 Initial Pressure: 8.5 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Ro ppbv	esult µg/m³	Analyte Qualifiers		orting mit µg/m³	Dilution	Prepared	Analyzed
Vinyl acetate (108-05-4)	U	U		0.50	1.76	1	05/14/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.05	0.13	"	"	"
meta-/para-Xylene (na)	U	U		0.25	1.09	"	"	"
ortho-Xylene (95-47-6)	U	U		0.25	1.09	"	"	"
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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-06 Station ID: SS-2

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 11.8 psia Sample Type: air Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	3.73		93.2	70-130	05/15/12 05/27/12

Targets

	Re	esult	Analyte	Repo Lir	orting nit			
Analyte (CAS Number)	ppbv	\mug/m^3	Qualifiers	ppbv	$\mu g/m^3$	Dilution	Prepared	Analyzed
Acetone (67-64-1)	3.11	7.40		2.50	5.95	1	05/15/12	05/27/12
Acrolein (107-02-8)	U	U		0.50	1.15	"	"	"
Benzene (71-43-2)	0.10	0.32		0.05	0.16	"	"	"
Benzyl chloride (100-44-7)	U	U		0.50	2.59	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.25	0.55	"	"	"
2-Butanone (78-93-3)	4.17	12.3		1.00	2.95	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.25	1.68	"	"	"
Bromoform (75-25-2)	U	U		0.25	2.59	"	"	"
Bromomethane (74-83-9)	U	U		0.25	0.97	"	"	"
Carbon disulfide (75-15-0)	U	U		0.25	0.78	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.25	1.58	"	"	"
Chlorobenzene (108-90-7)	U	U		0.25	1.15	"	"	"
Chlorodibromomethane (124-48-1)	U	U		0.25	2.13	"	"	"
Chloroethane (75-00-3)	U	U		0.25	0.66	"	"	"
Chloroform (67-66-3)	U	U		0.05	0.24	"	"	"
Chloromethane (74-87-3)	U	U		0.25	0.52	"	"	"
Cyclohexane (110-82-7)	U	U		0.25	0.86	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.25	1.93	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.25	1.51	"	"	"
1,3-Dichlorobenzene (541-73-1)	0.48	2.89		0.25	1.51	"	"	"
1,4-Dichlorobenzene (106-46-7)	0.29	1.75		0.25	1.51	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.25	1.24	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.25	1.01	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.25	1.01	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.25	0.99	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.25	0.99	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.25	0.99	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		0.25	1.16	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-06 Station ID: SS-2

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 11.8 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	ח	- av 14	A mol-1-		orting			
Analyte (CAS Number)		esult μg/m³	Analyte Qualifiers	Lir ppbv	mit µg/m³	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.25	1.14	1	05/15/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.25	1.14	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.25	1.75	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.00	3.61	"	"	"
Ethyl acetate (141-78-6)	U	U		0.50	1.81	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.00	1.89	"	"	"
Ethylbenzene (100-41-4)	U	U		0.25	1.09	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.25	1.23	"	"	"
n-Heptane (142-82-5)	U	U		0.25	1.03	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.25	2.67	"	"	"
n-Hexane (110-54-3)	U	U		0.25	0.88	"	"	"
2-Hexanone (591-78-6)	U	U		0.50	2.05	"	"	"
Isopropyl alcohol (67-63-0)	65.3	161		25.0	61.6	5	"	05/27/12
Methylene chloride (75-09-2)	U	U		0.25	0.87	1	"	05/27/12
4-Methyl-2-pentanone (108-10-1)	U	U		0.50	2.05	"	"	"
Methyl methacrylate (80-62-6)	U	U		0.25	1.03	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.25	0.90	"	"	"
Propene (115-07-1)	U	U		0.25	0.43	"	"	"
Styrene (100-42-5)	U	U		0.25	1.07	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.25	1.72	"	"	"
Tetrachloroethene (127-18-4)	0.07	0.48		0.05	0.34	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.25	0.74	"	"	"
Toluene (108-88-3)	0.41	1.55		0.25	0.94	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.25	1.86	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.25	1.37	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.25	1.37	"	"	"
Trichloroethene (79-01-6)	U	U		0.05	0.27	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.25	1.41	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.25	1.92	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	0.42	2.07		0.25	1.23	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.25	1.23	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-06 Station ID: SS-2

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 11.8 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)		esult µg/m³	Analyte Qualifiers		orting nit µg/m³	Dilution	Prepared	Analyzed
Vinyl acetate (108-05-4)	U	U		0.50	1.76	1	05/15/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.05	0.13	"	"	"
meta-/para-Xylene (na)	0.39	1.70		0.25	1.09	"	"	"
ortho-Xylene (95-47-6)	U	U		0.25	1.09	"	"	"
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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-07 Station ID: TB-1-Air

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 12.9 psia Sample Type: air Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	3.62		90.5	70-130	05/15/12 05/27/12

Targets

	Reporting Result Analyte Limit								
Analyte (CAS Number)		esult μg/m³	Analyte Qualifiers	Lii ppbv	nit µg/m³	Dilution	Prepared	Analyzed	
Acetone (67-64-1)	U	U		2.50	5.95	1	05/15/12	05/27/12	
Acrolein (107-02-8)	U	U		0.50	1.15	"	"	"	
Benzene (71-43-2)	0.10	0.32		0.05	0.16	"	"	"	
Benzyl chloride (100-44-7)	U	U		0.50	2.59	"	"	"	
1,3-Butadiene (106-99-0)	U	U		0.25	0.55	"	"	"	
2-Butanone (78-93-3)	U	U		1.00	2.95	"	"	"	
Bromodichloromethane (75-27-4)	U	U		0.25	1.68	"	"	"	
Bromoform (75-25-2)	U	U		0.25	2.59	"	"	"	
Bromomethane (74-83-9)	U	U		0.25	0.97	"	"	"	
Carbon disulfide (75-15-0)	U	U		0.25	0.78	"	"	"	
Carbon tetrachloride (56-23-5)	U	U		0.25	1.58	"	"	"	
Chlorobenzene (108-90-7)	U	U		0.25	1.15	"	"	"	
Chlorodibromomethane (124-48-1)	U	U		0.25	2.13	"	"	"	
Chloroethane (75-00-3)	U	U		0.25	0.66	"	"	"	
Chloroform (67-66-3)	0.09	0.44		0.05	0.24	"	"	"	
Chloromethane (74-87-3)	U	U		0.25	0.52	"	"	"	
Cyclohexane (110-82-7)	U	U		0.25	0.86	"	"	"	
1,2-Dibromoethane (106-93-4)	U	U		0.25	1.93	"	"	"	
1,2-Dichlorobenzene (95-50-1)	U	U		0.25	1.51	"	"	"	
1,3-Dichlorobenzene (541-73-1)	U	U		0.25	1.51	"	"	"	
1,4-Dichlorobenzene (106-46-7)	U	U		0.25	1.51	"	"	"	
Dichlorodifluoromethane (75-71-8)	U	U		0.25	1.24	"	"	"	
1,1-Dichloroethane (75-34-3)	U	U		0.25	1.01	"	"	"	
1,2-Dichloroethane (107-06-2)	U	U		0.25	1.01	"	"	"	
1,1-Dichloroethene (75-35-4)	U	U		0.25	0.99	"	"	"	
cis-1,2-Dichloroethene (156-59-2)	U	U		0.25	0.99	"	"	"	
trans-1,2-Dichloroethene (156-60-5)	U	U		0.25	0.99	"	"	"	
1,2-Dichloropropane (78-87-5)	U	U		0.25	1.16	"	"	"	

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10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-07 Station ID: TB-1-Air

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 12.9 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	D	esult	Analyte	Repo Lir	orting			
Analyte (CAS Number)		μg/m ³	Qualifiers	ppbv	μg/m³	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.25	1.14	1	05/15/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.25	1.14	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.25	1.75	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.00	3.61	"	"	"
Ethyl acetate (141-78-6)	U	U		0.50	1.81	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.00	1.89	"	"	"
Ethylbenzene (100-41-4)	U	U		0.25	1.09	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.25	1.23	"	"	"
n-Heptane (142-82-5)	U	U		0.25	1.03	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.25	2.67	"	"	"
n-Hexane (110-54-3)	U	U		0.25	0.88	"	"	"
2-Hexanone (591-78-6)	U	U		0.50	2.05	"	"	"
Isopropyl alcohol (67-63-0)	U	U		5.00	12.3	"	"	"
Methylene chloride (75-09-2)	U	U		0.25	0.87	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		0.50	2.05	"	"	"
Methyl methacrylate (80-62-6)	U	U		0.25	1.03	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.25	0.90	"	"	"
Propene (115-07-1)	U	U		0.25	0.43	"	"	"
Styrene (100-42-5)	U	U		0.25	1.07	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.25	1.72	"	"	"
Tetrachloroethene (127-18-4)	0.06	0.41		0.05	0.34	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.25	0.74	"	"	"
Toluene (108-88-3)	U	U		0.25	0.94	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.25	1.86	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.25	1.37	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.25	1.37	"	"	"
Trichloroethene (79-01-6)	0.12	0.65	В	0.05	0.27	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.25	1.41	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.25	1.92	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	U	U		0.25	1.23	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.25	1.23	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-07 Station ID: TB-1-Air

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 12.9 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Re ppbv	esult µg/m³	Analyte Qualifiers		orting nit µg/m³	Dilution	Prepared	Analyzed
Vinyl acetate (108-05-4)	U	U		0.50	1.76	1	05/15/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.05	0.13	"	"	"
meta-/para-Xylene (na)	U	U		0.25	1.09	"	"	"
ortho-Xylene (95-47-6)	U	U		0.25	1.09	"	"	"
-								F.

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: 4-Bromofluorobenzene	3.73		4.00	93.2	70-130

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Targets

		141900
ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Acetone	U	1.25
Acrolein	U	0.25
Benzene	U	0.02
Benzyl chloride	U	0.25
1,3-Butadiene	U	0.12
2-Butanone	U	0.50
Bromodichloromethane	U	0.12
Bromoform	U	0.12
Bromomethane	U	0.12
Carbon disulfide	U	0.12
Carbon tetrachloride	U	0.12
Chlorobenzene	U	0.12
Chlorodibromomethane	U	0.12
Chloroethane	U	0.12
Chloroform	U	0.02
Chloromethane	U	0.12
Cyclohexane	U	0.12
1,2-Dibromoethane	U	0.12
1,2-Dichlorobenzene	U	0.12
1,3-Dichlorobenzene	U	0.12
1,4-Dichlorobenzene	U	0.12

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Targets (Continued)

	u		
ANIAL NOTE	Result ppbv	Analyte Reporting Qualifiers Limit	
ANALYTE	ppov		
Dichlorodifluoromethane	U	0.12	
1,1-Dichloroethane	U	0.12	
1,2-Dichloroethane	U	0.12	
1,1-Dichloroethene	U	0.12	
cis-1,2-Dichloroethene	U	0.12	
trans-1,2-Dichloroethene	U	0.12	
1,2-Dichloropropane	U	0.12	
cis-1,3-Dichloropropene	U	0.12	
trans-1,3-Dichloropropene	U	0.12	
1,2-Dichloro-1,1,2,2-tetrafluoroe thane	U	0.12	
1,4-Dioxane	U	0.50	
Ethyl acetate	U	0.25	
Ethyl alcohol	U	0.50	
Ethylbenzene	U	0.12	
1-Ethyl-4-methylbenzene	U	0.12	
n-Heptane	U	0.12	
Hexachlorobutadiene	U	0.12	
n-Hexane	U	0.12	
2-Hexanone	U	0.25	
Isopropyl alcohol	U	2.50	
Methylene chloride	U	0.12	
4-Methyl-2-pentanone	U	0.25	
Methyl methacrylate	U	0.12	
Methyl tertiary-butyl ether	U	0.12	
Propene	U	0.12	
Styrene	U	0.12	
1,1,2,2-Tetrachloroethane	U	0.12	
Tetrachloroethene	U	0.02	
	0		

Report Name: 1205004 FINAL 07 30 12 1155



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Fax:(281)983-2248 Phone:(281)983-2100

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	
Tetrahydrofuran	U	0.12	
Toluene	U	0.12	
1,2,4-Trichlorobenzene	U	0.25	
1,1,1-Trichloroethane	U	0.12	
1,1,2-Trichloroethane	U	0.12	
Trichloroethene	0.02	0.02	
Trichlorofluoromethane	U	0.12	
1,1,2-Trichloro-1,2,2-trifluoroeth ane	U	0.12	
1,2,4-Trimethylbenzene	U	0.12	
1,3,5-Trimethylbenzene	U	0.12	
Vinyl acetate	U	0.25	
Vinyl chloride	U	0.02	
meta-/para-Xylene	U	0.12	
ortho-Xylene	U	0.12	

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: 4-Bromofluorobenzene	4.09		4.00	102	70-130

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets

Result	Analyte Reporting Spike	%REC
ANALYTE ppbv	Qualifiers Limit Level	%REC Limits

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets (Continued)

D 1					
Result			2/552	%REC	
ppbv	Qualifiers Limit	Level	%REC	Limits	
4.89		5.00	97.8	70-130	
4.46		5.00	89.2	70-130	
4.48		5.00	89.6	70-130	
4.47		5.00	89.4	70-130	
4.69		5.00	93.8	70-130	
3.95		5.00	79.0	70-130	
4.50		5.00	90.0	70-130	
5.31		5.00	106	70-130	
4.36		5.00	87.2	70-130	
4.42		5.00	88.4	70-130	
4.65		5.00	93.0	70-130	
4.38		5.00	87.6	70-130	
4.62		5.00	92.4	70-130	
4.73		5.00	94.6	70-130	
4.72		5.00	94.4	70-130	
4.31		5.00	86.2	70-130	
4.53		5.00	90.6	70-130	
4.29		5.00	85.8	70-130	
5.03		5.00	101	70-130	
4.37		5.00	87.4	70-130	
4.93		5.00	98.6	70-130	
4.42		5.00	88.4	70-130	
4.86		5.00	97.2	70-130	
4.68		5.00	93.6	70-130	
4.18		5.00	83.6	70-130	
5.12		5.00	102	70-130	
4.35		5.00	87.0	70-130	
4.44		5.00	88.8	70-130	
	9pbv 4.89 4.46 4.48 4.47 4.69 3.95 4.50 5.31 4.36 4.42 4.65 4.38 4.62 4.73 4.72 4.31 4.53 4.29 5.03 4.37 4.93 4.42 4.86 4.68 4.18 5.12 4.35	ppbv Qualifiers Limit 4.89 4.46 4.48 4.47 4.69 3.95 4.50 5.31 4.36 4.42 4.65 4.38 4.62 4.73 4.72 4.31 4.53 4.29 5.03 4.37 4.93 4.42 4.86 4.68 4.18 5.12 4.35	ppbv Qualifiers Limit Level 4.89 5.00 4.46 5.00 4.48 5.00 4.47 5.00 4.69 5.00 3.95 5.00 4.50 5.00 5.31 5.00 4.36 5.00 4.42 5.00 4.65 5.00 4.38 5.00 4.73 5.00 4.73 5.00 4.31 5.00 4.32 5.00 4.33 5.00 4.37 5.00 4.42 5.00 4.42 5.00 4.42 5.00 4.42 5.00 4.86 5.00 4.18 5.00 5.12 5.00 4.35 5.00	ppbv Qualifiers Limit Level %REC 4.89 5.00 97.8 4.46 5.00 89.2 4.48 5.00 89.6 4.47 5.00 89.4 4.69 5.00 93.8 3.95 5.00 79.0 4.50 5.00 90.0 5.31 5.00 90.0 5.31 5.00 87.2 4.42 5.00 87.2 4.42 5.00 83.0 4.38 5.00 87.6 4.62 5.00 92.4 4.73 5.00 94.6 4.72 5.00 94.4 4.31 5.00 96.2 4.53 5.00 90.6 4.29 5.00 85.8 5.03 5.00 87.4 4.93 5.00 98.6 4.42 5.00 88.4 4.86 5.00 97.2 4.68	ppbv Qualifiers Limit Level %REC Limits 4.89 5.00 97.8 70-130 4.46 5.00 89.2 70-130 4.48 5.00 89.6 70-130 4.47 5.00 89.4 70-130 4.69 5.00 93.8 70-130 3.95 5.00 79.0 70-130 4.50 5.00 90.0 70-130 4.36 5.00 90.0 70-130 4.36 5.00 87.2 70-130 4.42 5.00 88.4 70-130 4.38 5.00 87.6 70-130 4.38 5.00 87.6 70-130 4.72 5.00 92.4 70-130 4.72 5.00 94.6 70-130 4.72 5.00 94.7 70-130 4.53 5.00 90.6 70-130 4.53 5.00 85.8 70-130 4.93

Report Name: 1205004 FINAL 07 30 12 1155



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	%REC	%REC Limits	
n-Heptane	5.30		5.00	106	70-130	
n-Hexane	4.77		5.00	95.4	70-130	
2-Hexanone	4.53		5.00	90.6	70-130	
Isopropyl alcohol	4.54		5.00	90.8	70-130	
Methylene chloride	4.42		5.00	88.4	70-130	
4-Methyl-2-pentanone	4.61		5.00	92.2	70-130	
Methyl tertiary-butyl ether	5.07		5.00	101	70-130	
Propene	4.68		5.00	93.6	70-130	
Styrene	3.96		5.00	79.2	70-130	
Tetrachloroethene	4.40		5.00	88.0	70-130	
Tetrahydrofuran	5.16		5.00	103	70-130	
Toluene	4.67		5.00	93.4	70-130	
1,1,1-Trichloroethane	4.46		5.00	89.2	70-130	
1,1,2-Trichloroethane	4.49		5.00	89.8	70-130	
Trichloroethene	4.33		5.00	86.6	70-130	
Trichlorofluoromethane	4.20		5.00	84.0	70-130	
1,1,2-Trichloro-1,2,2-trifluoroeth ane	4.46		5.00	89.2	70-130	
Vinyl chloride	4.61		5.00	92.2	70-130	
meta-/para-Xylene	8.55		10.0	85.5	70-130	
ortho-Xylene	4.10		5.00	82.0	70-130	

LCS Dup (B2E1401-BSD1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level %	REC	%REC Limits
Surr: 4-Bromofluorobenzene	4.10		4.00	102	70-130

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

LCS Dup (B2E1401-BSD1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets

		Turgets						
	Result	Analyte Reporting	Spike	Source		%REC		RPD
ANALYTE	ppbv	Qualifiers Limit	Level	Result	%REC	Limits	RPD	Limit
Acetone	5.23		5.00		105	70-130	6.72	25
Benzene	4.80		5.00		96.0	70-130	7.34	25
1,3-Butadiene	4.94		5.00		98.8	70-130	9.77	25
2-Butanone	4.80		5.00		96.0	70-130	7.12	25
Bromodichloromethane	5.01		5.00		100	70-130	6.60	25
Bromoform	4.08		5.00		81.6	70-130	3.24	25
Bromomethane	4.57		5.00		91.4	70-130	1.54	25
Carbon disulfide	5.46		5.00		109	70-130	2.79	25
Carbon tetrachloride	4.60		5.00		92.0	70-130	5.36	25
Chlorobenzene	4.49		5.00		89.8	70-130	1.57	25
Chloroethane	4.94		5.00		98.8	70-130	6.05	25
Chloroform	4.73		5.00		94.6	70-130	7.68	25
Chloromethane	4.97		5.00		99.4	70-130	7.30	25
Cyclohexane	4.84		5.00		96.8	70-130	2.30	25
1,2-Dibromoethane	4.79		5.00		95.8	70-130	1.47	25
Dichlorodifluoromethane	4.57		5.00		91.4	70-130	5.86	25
1,1-Dichloroethane	4.89		5.00		97.8	70-130	7.64	25
1,2-Dichloroethane	4.64		5.00		92.8	70-130	7.84	25
1,1-Dichloroethene	5.24		5.00		105	70-130	4.09	25
cis-1,2-Dichloroethene	4.78		5.00		95.6	70-130	8.96	25
trans-1,2-Dichloroethene	5.27		5.00		105	70-130	6.67	25
1,2-Dichloropropane	4.79		5.00		95.8	70-130	8.03	25
cis-1,3-Dichloropropene	5.05		5.00		101	70-130	3.83	25
trans-1,3-Dichloropropene	4.80		5.00		96.0	70-130	2.53	25
1,2-Dichloro-1,1,2,2-tetrafluoroe thane	4.36		5.00		87.2	70-130	4.22	25
1,4-Dioxane	5.29		5.00		106	70-130	3.27	25
Ethyl alcohol	4.12		5.00		82.4	70-130	5.43	25
Ethylbenzene	4.57		5.00		91.4	70-130	2.89	25

Report Name: 1205004 FINAL 07 30 12 1155



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

LCS Dup (B2E1401-BSD1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets (Continued)

		<u> </u>						
ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
n-Heptane	5.08		5.00		102	70-130	4.24	25
n-Hexane	4.80		5.00		96.0	70-130	0.63	25
2-Hexanone	4.80		5.00		96.0	70-130	5.79	25
Isopropyl alcohol	5.77		5.00		115	70-130	23.9	25
Methylene chloride	4.70		5.00		94.0	70-130	6.14	25
4-Methyl-2-pentanone	4.72		5.00		94.4	70-130	2.36	25
Methyl tertiary-butyl ether	5.21		5.00		104	70-130	2.72	25
Propene	4.88		5.00		97.6	70-130	4.18	25
Styrene	4.04		5.00		80.8	70-130	2.00	25
Tetrachloroethene	4.66		5.00		93.2	70-130	5.74	25
Tetrahydrofuran	5.60		5.00		112	70-130	8.18	25
Toluene	4.72		5.00		94.4	70-130	1.06	25
1,1,1-Trichloroethane	4.74		5.00		94.8	70-130	6.09	25
1,1,2-Trichloroethane	4.90		5.00		98.0	70-130	8.73	25
Trichloroethene	4.56		5.00		91.2	70-130	5.17	25
Trichlorofluoromethane	4.65		5.00		93.0	70-130	10.2	25
1,1,2-Trichloro-1,2,2-trifluoroeth ane	4.74		5.00		94.8	70-130	6.09	25
Vinyl chloride	4.86		5.00		97.2	70-130	5.28	25
meta-/para-Xylene	8.85		10.0		88.5	70-130	3.45	25
ortho-Xylene	4.25		5.00		85.0	70-130	3.59	25

Duplicate (B2E1401-DUP1)

Source: 1205004-01 Prepared: 5/14/2012 Analyzed: 5/27/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: 4-Bromofluorobenzene	3.74		4.00	93.5	70-130

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

Duplicate (B2E1401-DUP1)

Source: 1205004-01 Prepared: 5/14/2012 Analyzed: 5/27/2012

Targets

		rargets		
ANALYTE	Result ppbv	Analyte Reporting Spike Qualifiers Limit Level	Source Result	RPD RPD Limit
			Result	
Acetone	U	12,500		25
Benzene	134,000	2,500	136,000	1.86 35
Benzyl chloride	U	2,500		35
1,3-Butadiene	U	1,250		35
2-Butanone	U	5,000		35
Bromodichloromethane	U	1,250		25
Bromoform	U	1,250		25
Bromomethane	U	1,250		35
Carbon disulfide	U	1,250		25
Carbon tetrachloride	U	1,250		35
Chlorobenzene	U	12,500		35
Chlorodibromomethane	U	1,250		25
Chloroethane	U	1,250		35
Chloroform	U	250		35
Chloromethane	U	1,250		35
Cyclohexane	531,000	12,500	562,000	5.58 25
1,2-Dibromoethane	U	1,250		35
1,2-Dichlorobenzene	U	1,250		35
1,3-Dichlorobenzene	U	1,250		35
1,4-Dichlorobenzene	U	1,250		35
Dichlorodifluoromethane	U	1,250		35
1,1-Dichloroethane	U	1,250		35
1,2-Dichloroethane	U	1,250		35
1,1-Dichloroethene	U	1,250		35
cis-1,2-Dichloroethene	U	1,250		35
trans-1,2-Dichloroethene	U	1,250		25
1,2-Dichloropropane	U	1,250		35
cis-1,3-Dichloropropene	U	1,250		35
trans-1,3-Dichloropropene	U	1,250		35
,, =	-	-,		

Report Name: 1205004 FINAL 07 30 12 1155



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

Duplicate (B2E1401-DUP1)

Source: 1205004-01 Prepared: 5/14/2012 Analyzed: 5/27/2012

Targets (Continued)

		raigets (Continued)			
	Result	Analyte Reporting Spike	Source		RPD
ANALYTE	ppbv	Qualifiers Limit Level	Result	RPD	Limit
1,2-Dichloro-1,1,2,2-tetrafluoroe	U	1,250			35
thane					
1,4-Dioxane	U	5,000			25
Ethyl alcohol	U	5,000			25
Ethylbenzene	U	1,250			35
1-Ethyl-4-methylbenzene	U	1,250			35
n-Heptane	2,850	1,250	2,550	11.1	25
Hexachlorobutadiene	U	1,250			35
n-Hexane	38,200	1,250	35,200	8.16	35
2-Hexanone	U	2,500			25
Isopropyl alcohol	U	25,000			25
Methylene chloride	U	12,500			35
4-Methyl-2-pentanone	U	2,500			35
Methyl tertiary-butyl ether	U	1,250			35
Propene	21,400	1,250	19,700	8.04	25
Styrene	U	1,250			35
1,1,2,2-Tetrachloroethane	U	1,250			35
Tetrachloroethene	U	250			35
Tetrahydrofuran	U	1,250			25
Toluene	U	1,250			35
1,2,4-Trichlorobenzene	U	1,250			35
1,1,1-Trichloroethane	U	1,250			35
1,1,2-Trichloroethane	U	1,250			35
Trichloroethene	U	250			35
Trichlorofluoromethane	U	1,250			35
1,1,2-Trichloro-1,2,2-trifluoroeth	U	1,250			35
ane					
1,2,4-Trimethylbenzene	4,250	1,250	4,000	6.06	35
1,3,5-Trimethylbenzene	U	1,250			35

Report Name: 1205004 FINAL 07 30 12 1155



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

Duplicate (B2E1401-DUP1)

Source: 1205004-01 Prepared: 5/14/2012 Analyzed: 5/27/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Spik Qualifiers Limit Leve	e Source l Result	RF RPD Lin	
Vinyl chloride	U	250		3.	5
meta-/para-Xylene	3,550	1,250	3,350	5.80 3	5
ortho-Xylene	U	1,250		3.	5

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1504 Sample Type: air

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: 4-Bromofluorobenzene	3.68		4.00	92.0	70-130

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Targets

	Result	Analyte Reporting
ANALYTE	ppbv	Qualifiers Limit
Acetone	U	1.25
Acrolein	U	0.25
Benzene	U	0.02
Benzyl chloride	U	0.25
1,3-Butadiene	U	0.12
2-Butanone	U	0.50
Bromodichloromethane	U	0.12
Bromoform	U	0.12
Bromomethane	U	0.12
Carbon disulfide	U	0.12
Carbon tetrachloride	U	0.12
Chlorobenzene	U	0.12
Chlorodibromomethane	U	0.12
Chloroethane	U	0.12
Chloroform	U	0.02
Chloromethane	U	0.12
Cyclohexane	U	0.12
1,2-Dibromoethane	U	0.12
1,2-Dichlorobenzene	U	0.12
1,3-Dichlorobenzene	U	0.12
1,4-Dichlorobenzene	U	0.12
·	_	

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1504 Sample Type: air

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Targets (Continued)

		Analytan	
ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	
Dichlorodifluoromethane	U	0.12	
1,1-Dichloroethane	U	0.12	
1,2-Dichloroethane	U	0.12	
1,1-Dichloroethene	U	0.12	
cis-1,2-Dichloroethene	U	0.12	
trans-1,2-Dichloroethene	U	0.12	
1,2-Dichloropropane	U	0.12	
cis-1,3-Dichloropropene	U	0.12	
trans-1,3-Dichloropropene	U	0.12	
1,2-Dichloro-1,1,2,2-tetrafluoroe	U	0.12	
thane 1,4-Dioxane	**	0.50	
·	U		
Ethyl acetate	U	0.25	
Ethyl alcohol	U	0.50	
Ethylbenzene	U	0.12	
1-Ethyl-4-methylbenzene	U	0.12	
n-Heptane	U	0.12	
Hexachlorobutadiene	U	0.12	
n-Hexane	U	0.12	
2-Hexanone	U	0.25	
Isopropyl alcohol	U	2.50	
Methylene chloride	U	0.12	
4-Methyl-2-pentanone	U	0.25	
Methyl methacrylate	U	0.12	
Methyl tertiary-butyl ether	U	0.12	
Propene	U	0.12	
Styrene	U	0.12	
1,1,2,2-Tetrachloroethane	U	0.12	
Tetrachloroethene	U	0.02	

Report Name: 1205004 FINAL 07 30 12 1155



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1504 Sample Type: air

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	
Tetrahydrofuran	U	0.12	
Toluene	U	0.12	
1,2,4-Trichlorobenzene	U	0.12	
1,1,1-Trichloroethane	U	0.12	
1,1,2-Trichloroethane	U	0.12	
Trichloroethene	U	0.02	
Trichlorofluoromethane	U	0.12	
1,1,2-Trichloro-1,2,2-trifluoroeth ane	U	0.12	
1,2,4-Trimethylbenzene	U	0.12	
1,3,5-Trimethylbenzene	U	0.12	
Vinyl acetate	U	0.25	
Vinyl chloride	U	0.02	
meta-/para-Xylene	U	0.12	
ortho-Xylene	U	0.12	

Report Name: 1205004 FINAL 07 30 12 1155

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10625 Fallstone Road, Houston, TX 77099 hone:(281)983-2100 Fax:(281)983-2248 Phone:(281)983-2100

Page 1 of 1

USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD Site #: 06MB

No: 6-051012-000807-0008

DateShipped: 5/11/2012

Lab: U.S. EPA Region 6 Laboratory Sample Control

Lab Contact: Christy Warren Lab Phone: 281-983-2137

CarrierName: FedEx AirbillNo: 7935 3051 6201

Collected For Lab Use Station Tag/Preservative/Bottles Analysis/Turnaround Coll. Sample # Matrix/Sampler Location Method SG-14 05/08/2012 17:16 6-474159 (None) (1) TO-15(21) Grab SG-14 Air/ Jose Flores Shipment for Case Complete? Y

Samples Transferred From Chain of Custody # Special Instructions: Possibly not enough volume recovered to run analysis, possibly due to tight clay formation.

Analysis Key: TO-15=TO-15

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	A. Rom	= 0.3	Cwanen	5/11/12	9:15						
_	yearres	5-11-12	- C Willer I	114/10	110						
	/										+
											_



Environmental Protection Agency Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248 Page 1 of 1

USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 6-051012-232918-0014

DateShipped: 5/11/2012

Site #: 06MB

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

CarrierName: FedEx AirbillNo: 7935 3051 8351

Sample #	Matrix/Sampler	Coll. Method	Analysis	Turnaroun	d	Tag/Preservativ	e/Bottles		tion ation	Collected		ab Use nly
SG-19	Air/ Jose Flores	Grab	TO	-15(21)		6-474158 (No	ne) (1)	SG	-19	05/09/2012 18:43		
											1	
											-	
											-	
	-										1	
											_	
									1			
1												
								Ship	ment for	Case Complete? Y		
pecial Instruction	ons:									sferred From Chain	of Custod	y #
								25750000				
nalysis Key: TO	D-15=TO-15											
			-									
Items/Reason	Relinquished by	y Date	Received by	Date	Time	Items/Reason	Relinquish	ed By	Date	Received by	Date	Tim
	12 711		CWaven	F1 1								

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	(how Love	5-11-12	CWaven	5/14/12	9:15						
	July		- 100	the							
								-			



Laboratory Environmental Protection Agency Region

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Page 1 of 1

USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 6-051012-233352-0015

DateShipped: 5/11/2012 CarrierName: FedEx

AirbillNo: 7935 3052 0101

Site #: 06MB

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

Sample #	Matrix/Sampler	Coll. Method	Analysis/T	urnaround		Tag/Preservative	e/Bottles	Station Location	Collected	For Lab On	
			TO 1	E/04\		6-474163 (Nor	ne) (1)	SG-19-D	05/09/2012 18:43		
SG-19-D	Air/ Jose Flores	Grab	10-1	5(21)		0474100 (110)	(a) (t)				
								-			
								1			
1											
									21274200		
								Shipment	for Case Complete? Y	- Countral	
Special Instructi	ons:							Samples T	ransferred From Chair	1 of Custou	y #
Analysis Key: To	0.16=TO-15										
Analysis Key. 11	0-13-10-13		*				B 2 31.	d Bv Da	te Received by	Date	Tin
Items/Reasor	n Relinquished	by Date	Received by	Date	Time	Items/Reason	Relinquishe	d By Da	te Received by	Date	1.11
	Manhore	2-11-12	CWaven	5/14/12	9:15						1
	yay see	- 3.00	0.00.00	11:11:							
	//										+



Laboratory **Environmental Protection Agency** Region

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Page 1 of 1

USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD Site #: 06MB

No: 6-051012-000102-0006

DateShipped: 5/11/2012

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

CarrierName: FedEx AirbillNo: 7983 6108 5155 Lab Phone: 281-983-2137

Sample #	Matrix/Sampler	Coll. Method	Analysis/T	urnaround	1	Tag/Preservative	e/Bottles	Station		Collected	For Lal	
			70.4	10/04/		6-474161 (Nor	(A) (a)	SG-21		05/08/2012 14:29		
SG-21	Air/ Jose Flores	Grab	10-1	15(21)		0-474101 (1401	16) (1)	00 2				
											-	
									-			
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										ise Complete? Y		
Cascial Instruct	ions: A possible leak	at FA's connec	tion to the Summa ca	anister may	of occurred	during sample recov	ery.	Sample	s Transf	erred From Chain	of Custod	y #
орестат пізичен	ions. A possible leak	at Er to out it o										
	0.45-T0.45											
Analysis Key: T	0-15-10-15		-6-									
	n Relinguished	by Date	Received by	Date	Time	Items/Reason	Relinquishe	ed By	Date	Received by	Date	Tim
Items/Reaso					MEMES:		1					
	11 /20	x 11 17	CWaven	5/who	0.15							
	Jase Clas	D 5-11-16	- Cwamer	-114110	-1.10			-				
	1											
	,								-			+
								_				+



Laborator Environmental Protection Agency Region

10625 Fallstone Road, Houston, TX 77099 hone:(281)983-2100 Fax:(281)983-2248 Phone: (281)983-2100

Page 1 of 1

USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 6-051012-000259-0007

DateShipped: 5/11/2012 CarrierName: FedEx

AirbillNo: 7935 3051 2879

Site # 06MB

Lab: U.S. EPA Region 6 Laboratory Sample Control

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location SG-22	O5/08/2012 15:29	For Lab Use Only
	Air/ Jose Flores	Grab	TO-15(21)	6-474162 (None) (1)			
					1		
,							

Shipment for Case Complete? Y Special Instructions: A leak was identifed at the EA connection to the Summa canister during sample collection. Samples Transferred From Chain of Custody # Analysis Key: TO-15=TO-15

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	Charles Lorse	5-11-12	Cwanen	5/14/12	9:15						
	July 29	7.11.11	0 000000	11 1/10	1:1-						
											-



Laboratory Environmental Protection Agency Region

10625 Fallstone Road, Houston, TX 77099 hone:(281)983-2100 Fax:(281)983-2248 Phone: (281)983-2100

Page 1 of 1 USEPA CLP Generic COC (LAB COPY) DateShipped: 5/11/2012 CarrierName: FedEx AirbillNo: 7983 6108 1447

CHAIN OF CUSTODY RECORD

Site #: 06MB

No: 6-050912-234855-0004

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren Lab Phone: 281-983-2137

illNo: 7983 61		Coll.	Analysis/Tu	rnaround		Tag/Preservative/Bo	ttles	Station	n	Collected	For Lab Only	
Sample #	Matrix/Sampler	Method	***************************************				41	SS-2	0	5/08/2012 16:19		
			TO-15	(21)		6-474160 (None) (1)	90.11				
SS-2	Air/ Jose Flores	Grab							-			
												_
	1											
		-										
								-				
					-						+	
											-	
								1				
		-										
/												
											-	
								Shipn	ent for Ca	ase Complete? Y		
								Comm	loe Trans	ferred From Chair	of Custod	y #
Special Instru			*									
Analysis Key:	TO-15=TO-15						Relinquish	ed By	Date	Received by	Date	Tir
		d by Date	Received by	Date	Time	Items/Reason	Kemidaisi	00.0)				
Items/Reas	son Relinquishe	d by Date	12 C Waven	-11								
	11 /11		Chlouse	5/11/12	9:15							T
	better	2 5-11-20	12 C Warren	119/10	112							
_	1										-	-
	1											
								_				
						+						



Laboratory Environmental Protection Agency Region

10625 Fallstone Road, Houston, TX 77099 hone:(281)983-2100 Fax:(281)983-2248 Phone: (281)983-2100

Page 1 of 1

CHAIN OF CUSTODY RECORD

No: 6-050912-235753-0005

USEPA CLP Generic COC (LAB COPY)

DateShipped: 5/11/2012

CarrierName: FedEx

Site #: 06MB

Lab. U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

Sample #	Matrix/Sampler	Coll.	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
		Method		6-474164 (None) (1)	TB-1-Air	05/08/2012 18:00	
TB-1-Air	Air/ Jose Flores	Grab	TO-15(21)	0-4/4/04 (((0)(0) (1)			
							-
	-						
					1		
							-
/							

Shipment for Case Complete? Y Samples Transferred From Chain of Custody # Special Instructions:

Analysis Key: TO-15=TO-15

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Tin
	(Ana	5-11-12	Culauen	5/14/10	9:15						H
	The sex	J 1: 1-		"							



SWITED STATES

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Notes and Definitions

J The identification of the analyte is acceptable; the reported value is an estimate.

B Blank Related - The concentration found in the sample was less than 10X the concentration found in the

associated extraction, digestion and/or analysis blank. Presence in the sample is therefore suspect.

A This sample was extracted at a single acid pH.

HTS Sample was prepared and/or analyzed past recommended holding time. Concentrations should be

considered minimum values.

AES Atomic Emission Spectrometer

CVAA Cold Vapor Atomic Absorption

ECD Electron Capture Detector

GC Gas Chromatograph

GFAA Graphite Furnace Atomic Absorption

ICP Inductively Coupled Plasma

MS Mass Spectrometer

NA Not Applicable

NPD Nitrogen Phosphorous Detector

NR Not Reported

TCLP Toxicity Characteristic Leaching Procedure

U Undetected

Out of QC limits

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds *per* square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.

Report Name: 1205004 FINAL 07 30 12 1155



Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.

Report Name: 1205004 FINAL 07 30 12 1155

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 6 HOUSTON BRANCH 10625 FALLSTONE RD. HOUSTON, TEXAS 77099

July 18, 2012

MEMORANDUM

SUBJECT:	Contract Lab	poratory Program Data Review
FROM:	The state of the s	ores, Alternate ESAT Regional Project Officer tal Services Branch (6MD-HL)
то:	Chris Villarr	eal, Superfund Project Manager (6SF-RA)
	Site:	R&H OIL/TROPICANA
	Case#:	42498
	SDG#:	MF5MP0

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6 10625 Fallstone Road Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE:

July 16, 2012

TO:

Marvelyn Humphrey, ESAT PO, Region 6 EPA

FROM:

Tseng-Ying Fan, Data Reviewer, ESAT

THRU:

Dominic G. Jarecki, ESAT Program Manager, ESATIO67

SUBJECT:

CLP Data Review

Contract No.:

EP-W-06-030

TO No.:

030 2-12

Task/Sub-Task: ESAT Doc. No.:

B030-212-0045

TDF No.:

6-12-369B

ESAT File No.:

I - 0537

Attached is the data review summary for Case # 42498

SDG # MF5MP0

Site R & H Oil/Tropicana

COMMENTS:

I. LEVEL OF DATA REVIEW

Region 6 Standard Review was performed for this data package.

CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE II.

> The CCS and hardcopy review found the data package contractually compliant.

III. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

All results are acceptable.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 6

HOUSTON BRANCH 10625 FALLSTONE ROAD HOUSTON, TEXAS 77099

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO LABORATORY CONTRACT#_ SDG#_ SOW#_ SF#_	42498 A4 EP-W-09-035 MF5MP0 ISM01.3 303DD2MB	SITE R& H NO. OF SAMPLES MATRIX REVIEWER (IF NOT REVIEWER'S NAME COMPLETION DATE	Oil/Tropicana 5 Water ESB) ESAT Tseng-Ying Fan July 16, 2012	
SAMPLE NO.	MF5MP1 MF5MP2 MF5MP3	F5MP4 FA ASSESSMENT SUMM	ARY	
		ICP	HG	
6. ICP QC 7. LCS 8. SAMPLE 9. OTHER 10. OVERAL	RATIONS S S S S S S S S S S S S S S S S S S	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0	
M = I $Z = I$	Data had no prob Data qualified o Data unacceptab Not applicable.	due to major or mi	nor problems.	

ACTION ITEMS:

AREAS OF CONCERN:

COMMENTS/CLARIFICATIONS REGION 6 CLP QA REVIEW

CASE 42498 SDG MF5MP0 SITE R & H Oil/Tropicana LAB A4

COMMENTS: This SDG consisted of five water samples for total metals (by ICP-MS and ICP-AES) and mercury analyses following CLP SOW ISM01.3. The sampler designated sample MF5MP1 as the laboratory QC sample.

Region 6 Standard Review was performed for this package as requested by the TDF. The analytes of concern and the corresponding action levels are listed on page 14 of this report. Analytes of concern arsenic, cobalt, and/or manganese were reported at concentrations over the action levels in the samples. Samples MF5MP0, MF5MP1, and MF5MP4 were diluted 2X and reanalyzed because of high manganese concentrations. Sample MF5MP3 was diluted 5X and reanalyzed because of a high sodium concentration.

DATA ASSESSMENT: The QC problem affecting data usability is addressed below.

Because of laboratory blank readings, the antimony result <CRQL for sample MF5MP3 should be considered undetected and was flagged "U" at the CRQL on the DST.

OVERALL ASSESSMENT: All results are acceptable. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

The laboratory was contacted for three reporting issues (see Resubmission Request). The laboratory resubmission will not affect the DST, so the DST included in this report is the final version.

INORGANIC ACRONYMS

Computer-Aided Data Review and Evaluation CADRE Continuing Calibration Blank CCB CCS Contract Compliance Screening CCV Continuing Calibration Verification CN Cyanide Contract Required Quantitation Limit CROL Complete SDG File CSF DST Data Summary Table HG Mercury Initial Calibration Blank ICB TCP Inductively Coupled Plasma Inductively Coupled Plasma-Atomic Emission Spectroscopy ICP-AES ICP-MS Inductively Coupled Plasma-Mass Spectrometry Interference Check Sample ICS Initial Calibration Verification ICV IS Internal Standard LCS Laboratory Control Sample MDL Method Detection Limit NFG National Functional Guidelines Performance Evaluation PE &D Percent Difference Percent Recovery 8R Percent Relative Intensity %RI &RSD Percent Relative Standard Deviation Quality Assurance OA Quality Control QC OL Ouantitation Limit RPD Relative Percent Difference RSCC Regional Sample Control Center SDG Sample Delivery Group SMO Sample Management Office

SOW

SOL

TAL

Statement of Work

Target Analyte List

Sample Ouantitation Limit

INORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

- U Not detected at reported quantitation limit.
- L Reported concentration is between the MDL and the CRQL.
- J Result is estimated because of outlying quality control parameters such as matrix spike, serial dilution, etc., or the result is below the CRQL.
- R Result is unusable.
- F A possibility of a false negative exists.
- UC Reported concentration should be used as a raised quantitation limit because of blank effects and/or laboratory or field contamination.
- + High biased. Actual concentration may be lower than the concentration reported.
- Low biased. Actual concentration may be higher than the concentration reported.
- W The result should be used with caution. The result was reported on a dry weight basis although the sample did not conform to the EPA Office of Water definition of a soil sample because of its high water content (>70% moisture).

Case No.: 42498

SDG: MF5MP0

Reviewer: T. Fan

Laboratory: A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	MF5MP0				
STATION LOCATION		MW-14			
Analyte	ADJ CRQL	RESULT	FLAG		
Aluminum	200	200	U		
Antimony	2.0	22.3			
Arsenic	1.0	374			
Barium	10.0	443			
Beryllium	1.0	1.0	U		
Cadmium	1.0	1.0	U		
Calcium	5000	120000			
Chromium	2.0	0.56	LJ		
Cobalt	1.0	7.7	-		
Copper	2.0	0.64	LJ		
Iron	100	13300			
Lead	1.0	8.8			
Magnesium	5000	14300			
Manganese	2.0	1130			
Mercury	0.20	0.044	LJ		
Nickel	1.0	7.2			
Potassium	5000	1060	LJ		
Selenium	5.0	17.4			
Silver	1.0	1.0	U		
Sodium .	5000	222000			
Thallium	1.0	1.0	U		
Vanadium	5.0	5.0	U		
Zinc	2.0	2.4			

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.: 42498

SDG: MF5MP0

Reviewer: T. Fan

Laboratory: A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.	MF5MP1			
STATION LOCATION		MW-16		
Analyte	ADJ CRQL	RESULT	FLAG	
Aluminum	200	200	U	
Antimony	2.0	2.0	U	
Arsenic	1.0	176		
Barium	10.0	341	911	
Beryllium	1.0	1.0	U	
Cadmium	1.0	1.0	U	
Calcium	5000	104000	1 34	
Chromium	2.0	0.50	LJ	
Cobalt	1.0	1.2		
Copper	2.0	2.0	U	
Iron	100	12500		
Lead	1.0	1.0	U	
Magnesium	5000	11400	0.00	
Manganese	2.0	1140	100	
Mercury	0.20	0.054	LJ	
Nickel	1.0	3.1		
Potassium	5000	1040	LJ	
Selenium	5.0	9.4		
Silver	1.0	1.0	U	
Sodium	5000	179000		
Thallium	1.0	1.0	U	
Vanadium	5.0	5.0	U	
Zinc	2.0	1.3	LJ	

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.: 42498

SDG: MF5MP0

Reviewer: T. Fan

Laboratory: A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.	MF5MP2				
STATION LOCATION		MW-17			
Analyte	ADJ CRQL	RESULT	FLAG		
Aluminum	200	200	U		
Antimony	2.0	2.0	U		
Arsenic	1.0	27.1			
Barium	10.0	114			
Beryllium	1.0	1.0	U		
Cadmium	1.0	1.0	U		
Calcium	5000	119000			
Chromium	2.0	2.0	U		
Cobalt	1.0	1.3			
Copper	2.0	2.0	U		
Iron	100	1900			
Lead	1.0	0.27	LJ		
Magnesium	5000	9090			
Manganese	1.0	496	4		
Mercury	0.20	0.10	LJ		
Nickel	1.0	1.5			
Potassium	5000	1510	LJ		
Selenium	5.0	1.2	LJ		
Silver	1.0	1.0	U		
Sodium	5000	65800			
Thallium	1.0	1.0	U		
Vanadium	5.0	5.0	U		
Zinc	2.0	0.80	LJ		

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.: 42498

SDG: MF5MP0

Reviewer: T. Fan

Laboratory: A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		MF5MP3	
STATION LOCATION		MW-18	
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	2.0	U
Arsenic	1.0	148	
Barium	10.0	381	100
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	90800	
Chromium	2.0	0.55	LJ
Cobalt	1.0	2.8	1.0
Copper	2.0	1.4	LJ
Iron	100	7710	
Lead	1.0	5.0	
Magnesium	5000	20000	
Manganese	1.0	930	
Mercury	0.20	0.036	LJ
Nickel	1.0	5.1	
Potassium	5000	1200	LJ
Selenium	5.0	12.8	
Silver	1.0	1.0	U
Sodium	25000	908000	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	1.5	LJ

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.: 42498

SDG: MF5MP0

Reviewer: T. Fan

Laboratory: A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.	MF5MP4				
STATION LOCATION		MW-14-D	MALE		
Analyte	ADJ CRQL	RESULT	FLAG		
Aluminum	200	200	U		
Antimony	2.0	20.8			
Arsenic	1.0	377			
Barium	10.0	422	1 100		
Beryllium	1.0	1.0	U		
Cadmium	1.0	1.0	U		
Calcium	5000	117000			
Chromium	2.0	0.52	LJ		
Cobalt	1.0	7.8			
Copper	2.0	0.60	LJ		
Iron	100	12700			
Lead	1.0	8.4			
Magnesium	5000	13900			
Manganese	2.0	1170	L HALLA		
Mercury	0.20	0.056	LJ		
Nickel	1.0	7.4			
Potassium	5000	5000	U		
Selenium	5.0	16.2			
Silver	1.0	1.0	U		
Sodium	5000	217000			
Thallium	1.0	1.0	U		
Vanadium	5.0	5.0	U		
Zinc	2.0	2.7			

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

EPA Lab ID: A4		ORIGINALS	YES	NO	N/A
Lab location: The Woodlands, TX		CUSTODY SEALS	LEG	110	13/2
(* - FOLDERS PE	09/8 4DEN 4DO		x		
Region: 6 Audit No.: 4249 Resubmitted CSF? Yes	98/MF5MP0 No X	Present on package? Intact upon receipt?	X		
The same and the s		FORM DC-2	- A	-	+-
Box No(s): 1 COMMENTS:		3. Numbering scheme accurate?	X		
		4. Are enclosed documents listed?	Х		
		5. Are listed documents enclosed?	X		
		FORM DC-1		41	
		6. Present?	X		_
		7. Complete?	X	1	
		8. Accurate?	X	1000	
		TRAFFIC REPORT/CHAIN-OF-CUSTODY RECORD(s)	, , , , ,		
		9. Signed?	X		
		10. Dated?	X		
		AIRBILLS/AIRBILL STICKER			
		11. Present?	X	M	
		12. Signed?	X		
		13. Dated?	Х		
		SAMPLE TAGS 14. Does DC-1 list tags as being included?	X		
		15. Present?	X		
		OTHER DOCUMENTS 16. Complete?	X		
		17. Legible?	X		
		18. Original?	Х		
Over for additional comments.		18a. If "NO", does the copy indicate where original documents are located?			Х

	17. Legible?	X		
	18. Original?	X	700	
Over for additional comments.	18a. If "NO", does the copy indicate where original documents are located?	-		Х
Audited Audited	Tseng-Ying Fan/ESAT Data Reviewer	Date Date	07/12/	12
Signature	Printed Name/Title			
	DC-2_			

In Reference To Case No(s):
42498 SDG: MF5MP0 (I-0537)

Contract Laboratory Program REGIONAL/LABORATORY COMMUNICATION SYSTEM

Resubmission Request

Laboratory Name:

A4

Lab Contact:

Region:

Regional Contact:

ESAT Reviewer:

A4

Laxmi Teerupalli

6

Raymond Flores - EPA

Tseng-Ying Fan - ESAT

In reference to data for the following fractions:

ICP-AES

ICP-MS

Mercury

Summary of Questions/Issues:

A. ICP-AES

Form 3s (pp. 36 & 37): The method code for all analytes should be "P". Please correct and resubmit these pages.

B. ICP-MS

The serial dilution results reported on the Form 8 on p. 49 were not corrected for the 5X dilution, causing the unnecessary "E"-flagging of the arsenic and barium results on this form and all Form 1s. The associated Form 13 (p. 68) also had an incorrect dilution factor for the serial dilution sample. Please correct and resubmit all affected forms.

C. Mercury

The ICB and many CCBs had negative mercury concentrations with absolute values greater than or equal to the MDL. However, instead of reporting the negative concentrations as required by the SOW (ISM01.3, p. B-27, sec. 3.4.4.2.8), the analyst reported non-detect results on the Form 3s. Please correct and resubmit the Form 3s (pp. 28 - 30).

NOTE: Any submitted laboratory resubmission should be clearly marked as "Additional Data" with a cover letter included describing what data is being delivered, which Case the data pertains, and who requested the data (ISM01.3, p. B-8, sec. 2.2.1). Custody seals are required for all such shipments. Please respond to the above item within 6 business days (ISM01.3, p. B-8, sec. 2.2) by e-mail to Flores.Raymond@epa.gov and by regular mail to:

Mr. Raymond Flores
U.S. EPA Region 6 Laboratory
10625 Fallstone Road
Houston, TX 77099

If you have any questions, please contact Mr. Flores at 281-983-2139.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

Page 1 of 1

USEPA CLP Inorganics COC (REGION COPY)

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

No: 6-050912-230237-0003 Lab: A4 Scientific

DateShipped: 5/10/2012 CarrierName: FedEx

Case #: 42498

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

AirbillNo: 7983 6057 4464

Inorganic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Organic Sample #	Sample Type
MF5MP0	Water/ Jose Flores	Grab	TM+HG(21)	6-474014 (HNO3 pH<2) (1)	MW-14	05/10/2012 09:05	F5MP0	Field Sample
MF5MP1	Water/ Jose Flores	Grab	TM+HG(21), TM+HG(21)	6-474026 (HNO3 pH<2), 6-474027 (HNO3 pH<2) (2)	MW-16	05/10/2012 07:35	F5MP1	Field Sample
MF5MP2	Water/ Jose Flores	Grab	TM+HG(21)	6-474038 (HNO3 pH<2) (1)	MW-17	05/10/2012 12:19	F5MP2	Field Sample
MF5MP3	Water/ Jose Flores	Grab	TM+HG(21)	6-474049 (HNO3 pH<2) (1)	MW-18	05/09/2012 17:37	F5MP3	Field Sample
MF5MP4	Water/ Jose Flores	Grab	TM+HG(21)	6-474015 (HNO3 pH<2) (1)	MW-14-D	05/10/2012 09:05	31	Field Duplicate
- m			170					
								10.5
							-	

Sample(s) to be used for Lab QC: MF5MP1 - Special Instructions: Total metals+Hg by ISM01.3, ICP-AES+ICP-MS	Shipment for Case Complete? Y
ICP-MS for TM+Hg= Sb/As/Ba/Be/Cd/Cr/Co/Cu/Pb/Mn/Ni/Se/Ag/TI/V/Zn	Samples Transferred From Chain of Custody #
ICP-AES for TM= AI/Ca/Fe/Mg/K/Na	
Constitution of the Consti	

Analysis Key: TM+HG=TM + Hg-ISM01.3,ICP-MS+ICP-AES

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	An Hou	540-12		1 1							
				3 1		1				E 8	
										- =	

R&H OIL/TROPICANA ENERGY SITE GROUND WATER ANALYTE LIST – TOTAL METALS

	TOTAL MET	ALS		
Constituent	Extent Evaluation Comparison Value			
	mg/L	mg/L	μg/L	
Aluminum	2.40E+01	24.00000	24000.00	
Arsenic	1.00E-02	0.01000	10.00	
Barium	2.00E+00	2.00000	2000.00	
Chromium	1.00E-01	0.10000	100.00	
Cobalt	7.30E-03	0.00730	7.30	
Copper	1.30E+00	1.30000	1300.00	
Lead	1.50E-02	0.01500	15.00	
Manganese	1.10E+00	1.10000	1100.00	
Mercury	6.80E-04	0.00068	0.68	
Nickel	4.90E-01	0.49000	490.00	
Selenium	5.00E-02	0.05000	50.00	
Thallium	2.00E-03	0.00200	2.00	
Vanadium	1.70E-03	0.00170	1.70	
Zinc	7.30E+00	7.30000	7300.00	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 6 HOUSTON BRANCH 10625 FALLSTONE RD. HOUSTON, TEXAS 77099

July 16, 2012

MEMORANDUM

		•
SUBJECT:	ωD	Laboratory Program Data Review
FROM:		Flores, Alternate ESAT Regional Project Officer nental Services Branch (6MD-HL)
то:	Chris Vil	larreal, Superfund Project Manager (6SF-RA)
	Site:	R&H OIL/TROPICANA
	Case#: _	42498
	SDG#:	F5MP0

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6 10625 Fallstone Road Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE:

July 16, 2012

TO:

Marvelyn Humphrey, ESAT PO, Region 6 EPA

FROM:

Tseng-Ying Fan, Data Reviewer, ESAT

THRU:

Dominic G. Jarecki, ESAT Program Manager, ESAT $\rho6J$

SUBJECT:

CLP Data Review

Contract No.:

EP-W-06-030

TO No.:

030

Task/Sub-Task:

2-11 B030-211-0025

ESAT Doc. No.:

6-12-368B

TDF No.:

0-0882

ESAT File No.:

0-0882

Attached is the data review summary for Case # 42498

SDG # F5MP0

Site R & H Oil/Tropicana

COMMENTS:

I. LEVEL OF DATA REVIEW

Region 6 Standard Review was performed for this data package.

II. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

The CCS and hardcopy review found the data package contractually compliant.

III. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

Some results were qualified because of technical problems, and the significant problems are listed below.

- A. Seven TVOA and two TVOA-SIM samples had poor DMC performance.
- B. Two reported TVOA analytes had questionable identification.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

HOUSTON BRANCH 10625 FALLSTONE ROAD

HOUSTON, TEXAS 77099

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 42498	SITE R & H Oil/Tropicana
LABORATORY A4	NO. OF SAMPLES 17
CONTRACT# EP-W-10-018	MATRIX Water
SDG# F5MP0	REVIEWER (IF NOT ESB) ESAT
SOW# SOM01.2/MA1359.6 & MA1859.1	REVIEWER'S NAME Tseng-Ying Fan
SF# 303DD2MB	COMPLETION DATE July 16, 2012
SAMPLE NO. F5MP0 F5MP4 F5MP1 F5MP5 F5MP2 F5MP6 F5MP3 F5MP7	F5MP8 F5MQ4 F5MQ8 F5MP9 F5MQ5 F5MQ0 F5MQ6 F5MQ1 F5MQ7
	r Singr r Singr
DATA ASSESSN	MENT SUMMARY
	TVOA TVOA BNA BMA
	SIM SIM
· ·	
1. HOLDING TIMES	<u> </u>
2. GC/MS TUNE/INSTR. PERFORM.	0 0 0 0
3. CALIBRATIONS	M M O O M O O O M M O O
4. BLANKS	M M O O
5. DMC/SURROGATES	<u>M</u> <u>M</u> O
6. MATRIX SPIKE/DUPLICATE/LCS	$\overline{N/A}$ $\overline{N/A}$ $\overline{N/A}$ $\overline{N/A}$
7. OTHER QC	$\frac{1}{N/A}$ $\frac{1}{N/A}$ $\frac{1}{N/A}$ $\frac{1}{N/A}$
8. INTERNAL STANDARDS	0 0 0 0
9. COMPOUND ID/QUANTITATION	$\begin{array}{c cccc} O & O & O & O \\ \hline M & O & O & O \end{array}$
10. PERFORMANCE/COMPLETENESS	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N
11. OVERALL ASSESSMENT	$\frac{O}{M}$ $\frac{O}{M}$ $\frac{O}{O}$
TI. OAMWAN UOONOONINI	11 0

- O = Data had no problems.
- M = Data qualified because of major or minor problems.
- Z = Data unacceptable.
- NA = Not applicable.

ACTION ITEMS:

AREA OF CONCERN: TVOA Vinyl chloride, bromomethane, and carbon tetrachloride failed the technical %D or minimum RRF calibration criteria. The concentrations exceeded the upper instrument calibration limit for three reported analytes. Laboratory/field contamination affected four results. Seven samples had outlying DMC recoveries. Two reported analytes had questionable identification. TVOA-SIM The instrument had poor sensitivity for 1,2-dibromo-3-chloropropane. Samples F5MP9 and F5MQ8 had poor DMC performance.

COMMENTS/CLARIFICATIONS REGION 6 CLP QA REVIEW

CASE 42498 SDG F5MP0 SITE R & H Oil/Tropicana LAB A4

COMMENTS: This SDG consisted of 17 water samples for organics analysis following CLP SOW SOM01.2. With the exception of sample F5MQ4, the samples required TVOA and TVOA-SIM analyses. Samples F5MQ4, F5MP0, F5MP1, F5MP2, and F5MP3 required BNA and BNA-SIM analyses. The TVOA samples are subject to Modified Analysis Request 1359.6 (MA1359.6), which requires the analysis of 18 additional target compounds, including BNA TCL compounds naphthalene and hexachlorobutadiene. The BNA samples are subject to Modified Analysis Request 1859.1 (MA1859.1), which requires the analysis of two additional target compounds. The COC Records designated samples F5MQ5 and F5MQ6 as trip blanks and samples F5MQ7 and F5MQ8 as field blanks. No sample was designated for MS/MSD analyses.

Region 6 Standard Review was performed for this package as requested by the TDF. The target compounds of concern and action levels are listed on pages 118 to 121 of this report. Please note that the reported CRQLs were higher than the action levels for some compounds of concern for many samples because of method limitation or sample dilution. Some target compounds of concern were reported at concentrations over the action levels for TVOA samples F5MPO, F5MP1, F5MP2, F5MP3, and F5MP6 and BNA samples F5MPO, F5MP3, and F5MQ4.

For the target compounds with both the full scan and SIM analysis results available, the SIM analysis results are designated for use unless the corresponding full scan analysis reported results ≥CRQLs. One exception is that the full scan QL for 1,2-dibromo-3-chloropropane was designated for use for TVOA samples F5MPO, F5MP1, F5MP3, and F5MP6 because poor instrument sensitivity rendered the corresponding SIM analysis QL unusable. With the exception of sample F5MQ4, naphthalene and hexachlorobutadiene were target compounds for both the TVOA (MA1359.6) and BNA methods, and the reviewer designated for use the TVOA analysis results to achieve lower QL.

TVOA Many samples had outlying DMC recoveries, but the reviewer could not assess the impact on the results for the additional compounds requested by MA1359.6 because the association of these compounds with DMCs was unavailable to the reviewer.

Samples F5MP0, F5MP1, F5MP2, F5MP3, and F5MP6 were initially analyzed at 25X dilution followed by reanalysis at additional dilution because of extremely high TCL concentrations.

TVOA-SIM Samples F5MP4, F5MP5, F5MP8, F5MP9, F5MQ0, and F5MQ8 were reanalyzed because of poor DMC performance. The reanalyses repeated the problem, demonstrating matrix effect. The original analysis results are designated for use to minimize data qualification. Samples F5MP0, F5MP1, F5MP3, and F5MP6 were only analyzed at 25X dilution because of high matrix levels.

ORGANIC QA REVIEW CONTINUATION PAGE

CASE 42498 SDG F5MPO SITE R & H Oil/Tropicana LAB A4

BNA/BNA-SIM Most of the samples were initially analyzed at dilution with some followed by further dilution because of high TCL concentration or matrix level. BNA-SIM samples F5MP2 and F5MP3 were reanalyzed because of poor IS performance, and the reanalyses confirmed matrix effect. The original analysis results are designated for use.

DATA ASSESSMENT: The QC problems affecting data usability are addressed below.

TVOA

- The samples were preserved with acid as indicated by the pH values reported by the laboratory. Please note that polymerization of vinyl chloride and styrene is likely to occur in acid-preserved samples and could cause low-biased results for these two compounds.
- The reviewer qualified the results for the following compounds as estimated because these compounds failed the technical %D criteria for the associated opening CCV:

vinyl chloride in all samples and

carbon tetrachloride in samples F5MP4, F5MP5, F5MP6DL, F5MP8, F5MP9, and F5MQ1.

- The reviewer qualified as estimated the results for methylcyclohexane and 1,2,4-trimethylbenzene in sample F5MPO and o-xylene in sample F5MPO because the concentrations exceeded the upper instrument calibration limit. These analytes were diluted below the sample quantitation limits in the diluted reanalyses.
- Bromomethane did not meet the technical minimum RRF criteria for the low point IC. Since the IC raw data demonstrated the instrument sensitivity at the CRQL, the reviewer did not reject the associated non-detect results. Instead, the reviewer qualified the bromomethane QLs as estimated and biased low for all samples because raw data for the associated CCVs indicated a significant loss of instrument sensitivity for bromomethane. In the reviewer's opinion, the actual QL was 10X the reported value for bromomethane.
- Because of possible laboratory contamination, the laboratory "B"-flagged methylene chloride results <CRQLs should be considered undetected and were flagged "U" at the CRQLs on the DST.

ORGANIC QA REVIEW CONTINUATION PAGE

CASE 42498 SDG F5MPO SITE R & H Oil/Tropicana LAB A4

- Because of possible laboratory contamination, the reviewer qualified the laboratory "B"-flagged methylene chloride result >CRQL as undetected ("U"-flagged) for sample F5MQ6 and the reported concentration should be used as a raised QL ("M"-flagged).
- Because of possible field/shipping contamination, results <CRQLs for the following compounds should be considered undetected and were flagged "U" at the CRQLs on the DST:

toluene and m,p-xylene in sample F5MP1, toluene in sample F5MP2, and

naphthalene in sample F5MP5.

- Because of possible field contamination, the naphthalene results >CRQLs for the following samples were qualified as undetected ("U"-flagged) and the reported concentrations should be used as raised QLs ("M"-flagged): F5MP7, F5MP8, and F5MQ0.
- The reviewer qualified the trichloroethene, tetrachloroethene, ethylbenzene, and isopropylbenzene results >CRQLs as estimated and biased high for sample F5MP8 because the associated VDMC9 recovery exceeded the QC limit.
- Sample F5MP6 had an extremely low VDMC6 recovery (<10%), rendering associated non-detect results unusable. To maximize data usability, the reviewer recommends that the results associated with VDMC6 be taken from the diluted reanalysis (with an acceptable VMDC6 recovery) for this sample.
- The following samples had DMC recoveries below the QC limits, so the reviewer qualified as estimated and biased low the analyte results associated with these DMCs as listed below.

Sample $_$	DMC	
F5MP0	VDMC1,	VDMC3
F5MP4	VDMC10	
F5MP7	VDMC13	
F5MP8	VDMC10	
F5MQ1	VDMC10	
F5MQ6	VDMC13	
F5MQ7	VDMC13	

• The tert-butylbenzene spectra submitted for sample F5MP6 did not meet the relative intensity compound identification criteria, so the reviewer qualified the tert-butylbenzene identification as tentative for this sample, pending laboratory verification.

ORGANIC QA REVIEW CONTINUATION PAGE

CASE 42498 SDG F5MP0 SITE R & H Oil/Tropicana LAB A4

• The reviewer qualified the 1,2,4-trimethylbenzene identification as tentative for sample F5MP8 because of questionable RT, pending laboratory verification.

TVOA-SIM

- The instrument had poor sensitivity for 1,2-dibromo-3-chloropropane as demonstrated by the manual integration data submitted for the calibration standards. The raw data for one closing CCV showed that the instrument had difficulty detecting this analyte in the associated samples. Instead of rejecting the affected non-detect results, the reviewer recommends that the QL from the full scan analysis be taken for 1,2-dibromo-3-chloropropane for samples F5MP0, F5MP1, F5MP3, and F5MP6. The reviewer flagged the results in the DST accordingly. The poor instrument sensitivity also affected other samples to a lesser extent. The reviewer qualified the 1,2-dibromo-3-chloropropane QLs for the rest of the TVOA-SIM samples as estimated and biased low, and the actual QL was 10X the reported value in the reviewer's opinion.
- The reviewer qualified as estimated and biased low the 1,2-dibromoethane result for sample F5MP9 and the 1,2-dibromo-3-chloropropane result for sample F5MQ8 because the associated DMCs had recoveries below the QC limits.

BNA

Because of possible laboratory contamination, the laboratory "B"-flagged diethylphthalate and di-n-butylphthalate results <CRQLs for sample F5MP2 should be considered undetected and were flagged "U" at the CRQLs on the DST.

OVERALL ASSESSMENT: Some results were qualified for all TVOA and 12 TVOA-SIM samples because of problems with calibration, laboratory/field/shipping contamination, DMC recovery, and/or compound identification. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

In response to the CCS, the laboratory submitted the calibration form and raw data for the additional target compounds requested by MA1359.6. The reviewer repaginated the resubmitted data to go with the original data package. The resubmitted pages are placed at the beginning of the data package and should be inserted into the CSF package.

The laboratory was contacted for several CSF and reporting issues (see Resubmission Request). The laboratory response is likely to affect the DST.

ORGANIC ACRONYMS

%D Percent Difference

RSD Percent Relative Standard Deviation

ARO Aroclors

BRA 4-Bromofluorobenzene
BNA Base/Neutral and Acid

CADRE Computer-Aided Data Review and Evaluation

CCS Contract Compliance Screening

CCV Continuing Calibration Verification

CF Calibration Factor

CRQL Contract Required Quantitation Limit

CSF Complete SDG File DCB Decachlorobiphenyl

DFTPP Decafluorotriphenylphosphine
DMC Deuterated Monitoring Compound

DST Data Summary Table

GC/ECD Gas Chromatograph/Electron Capture Detector

GC/MS Gas Chromatograph/Mass Spectrometer

GPC Gel Permeation Chromatography

INDA(B,C) Individual Standard Mixture A(or B or C)

IS Internal Standard

LCS Laboratory Control Sample

LMVOA Low/Medium Volatile Organic Analysis MS/MSD Matrix Spike/Matrix Spike Duplicate

NFG National Functional Guidelines

OTR/COC Organic Traffic Report/Chain of Custody

PAH Polynuclear Aromatic Hydrocarbon

PE Performance Evaluation

PEM Performance Evaluation Mixture

PEST Pesticides

QA Quality Assurance QC Quality Control QL Quantitation Limit

RIC Reconstructed Ion Chromatogram
RPD Relative Percent Difference
RRF Relative Response Factor
RRT Relative Retention Time

RSCC Regional Sample Control Center

RT Retention Time

SDG Sample Delivery Group

SDMC Semivolatile Deuterated Monitoring Compound

SIM Selected Ion Monitoring
SMO Sample Management Office

SOW Statement of Work

SQL Sample Quantitation Limit SVOA Semivolatile Organic Analysis

TCL Target Compound List TCX Tetrachloro-m-xylene

TIC Tentatively Identified Compound TVOA Trace Volatile Organic Analysis

VDMC Volatile Deuterated Monitoring Compound

VOA Volatile Organic Analysis

ORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

- U Not detected at reported quantitation limit.
- N Identification is tentative.
- J Estimated value.
- L Reported concentration is below the CRQL.
- M Reported concentration should be used as a raised quantitation limit because of interferences and/or laboratory contamination.
- R Unusable.
- ^ High biased. Actual concentration may be lower than the concentration reported.
- v Low biased. Actual concentration may be higher than the concentration reported.
- F+ A false positive exists.
- F- A false negative exists.
- UJ Estimated quantitation limit.
- T Identification is questionable because of absence of other commonly coexisting pesticides.
- C Identification of pesticide or aroclor has been confirmed by Gas Chromatography/Mass Spectrometer (GC/MS).
- X Identification of pesticide or aroclor could not be confirmed by GC/MS when attempted.
- * Result not recommended for use because of associated QA/QC performance inferior to that from other analysis.

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP0	
STATION LOCATION		MW-14	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJv
Bromomethane	13	13	UJv
Chloroethane	13	13	υ
Trichlorofluoromethane	13	13	[U
1,1-Dichloroethene	13	13	UJv
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13 .	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U .
trans-1,2-Dichloroethene	13	13	UJv
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	UJV
2-Butanone	130	130	U -
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	1200	*
Carbon tetrachloride	13	13	U
Benzene	13	9900	*
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	600	J
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	10000	· *
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	Įυ
2-Hexanone	130	190	
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG:

Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	*	F5MP0	
STATION LOCATION		MW-14	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	13	1300	*
o-Xylene	13	2800	*
m,p-Xylene	13	6800	*
Styrene	13	13	Įυ
Bromoform	13	13	U
Isopropylbenzene	13	75	
1,1,2,2-Tetrachloroethane	13	13 .	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	υ
1,3-Dichloropropane	13	13	Įυ
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	13	ļU
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	400	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	240	
n-Propylbenzene	13	94	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	1000	J
Bromobenzene	13	13	U .

Volume (ml):

25

Dilution Factor:

25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP0DL	
STATION LOCATION		MW-14	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	1300	1300	U *
Chloromethane	1300	1300	Ū *
Vinyl chloride	1300	1300	U *
Bromomethane	1300	1300	U *
Chloroethane	1300	1300	U *
Trichlorofluoromethane	1300	1300	U * `
1,1-Dichloroethene	1300	1300	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	1300	1300	Ū *
Acetone	13000	13000	U *
Carbon Disulfide	1300	1300	U *
Methyl acetate	1300	1300	υ *
Methylene chloride	1300	1300	U *
trans-1,2-Dichloroethene	1300	1300	U *
Methyl tert-butyl ether	1300	1300	U *
1,1-Dichloroethane	1300	1300	U *
cis-1,2-Dichloroethene	1300	1300	U *
2-Butanone	13000	13000	U *
Bromochloromethane	1300	1300	U *
Chloroform	1300	1300	ย *
1,1,1-Trichloroethane	1300	1300	U *
Cyclohexane	1300	1400	
Carbon tetrachloride	1300	1300	U *
Benzene	1300	26000	
1,2-Dichloroethane	1300	1300	U *
Trichloroethene	1300	1300	U *
Methylcyclohexane	1300	1300	u *
1,2-Dichloropropane	1300	1300	U *
Bromodichloromethane	1300	1300	U *
cis-1,3-Dichloropropene	1300	1300	U *
4-Methyl-2-pentanone	13000	13000	U *
Toluene	1300	24000	
trans-1,3-Dichloropropene	1300	1300	U *
1,1,2-Trichloroethane	1300	1300	U *
Tetrachloroethene	1300	1300	U *
2-Hexanone	13000	13000	U *
Dibromochloromethane	1300	1300	U *
1,2-Dibromoethane	1300	1300	U *
Chlorobenzene	1300	1300	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MP0DL	
STATION LOCATION		MW-14	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	1300	1100	LJ
o-Xylene	1300	2500	
m,p-Xylene	1300	7300	
Styrene	1300	1300	U *
Bromoform	1300	1300	Ū *
Isopropylbenzene	1300	1300	U *
1,1,2,2-Tetrachloroethane	1300	1300	U *
1,3-Dichlorobenzene	1300	1300	ุบ *
1,4-Dichlorobenzene	1300	1300	U *
1,2-Dichlorobenzene	1300	1300	U *·
1,2-Dibromo-3-chloropropane	1300	1300	U *
1,2,4-Trichlorobenzene	1300	1300	U *
1,2,3-Trichlorobenzene	1300	1300	U *
1,3-Dichloropropane	1300	1300	U *
n-Butylbenzene	1300	1300	U *
sec-Butylbenzene	1300	1300	U *
tert-Butylbenzene	1300	1300	U *
2-Chlorotoluene	1300	1300	U *
4-Chlorotoluene	1300	1300	U *
Dibromomethane	1300	1300	U *
1,3,5-Trimethylbenzene	1300	1300	U *
2,2-Dichloropropane	1300	1300	U *
1,1-Dichloropropene	1300	1300	U *
Hexachlorobutadiene	1300	1300	U *
p-Isopropyltoluene	1300	1300	U *
Naphthalene	1300	710	*
n-Propylbenzene	1300	1300	U *
1,1,1,2-Tetrachloroethane	1300	1300	U *
1,2,3-Trichloropropane	1300	1300	U *
1,2,4-Trimethylbenzene	1300	1300	U *
Bromobenzene	1300	1300	U *

Volume (ml):

25

Dilution Factor:

2500

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.	1	F5MP0 (SIN	1)
STATION LOCATION		MW-14	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml):

25

Dilution Factor:

25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP1		
STATION LOCATION		MW-16	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	Ü
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U ·
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	220	
Carbon tetrachloride	13	13	U
Benzene	13	1600	*
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	200	
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	13	U
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	บ *
Chlorobenzene	13	13	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP1		
STATION LOCATION		MW-16	-
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	13	2.9	LJ
o-Xylene	13	3.0	LJ
m,p-Xylene	13	13	U
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	14	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U .
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U ·
1,2-Dibromo-3-chloropropane	13	13	U ·
1,2,4-Trichlorobenzene	13	13	Ü
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	U
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	\U ¹
tert-Butylbenzene	13 ·	13	ĮU
2-Chlorotoluene	13	13	ĮU
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	13	U
2,2-Dichloropropane	13	13	Įυ
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	17) ·
n-Propylbenzene	13	17	l
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	3.6	LJ
Bromobenzene	13	13	U

Volume (ml):

25

Dilution Factor:

25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MP1DL	
STATION LOCATION		MW-16	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	130	130	U *
Chloromethane	130	130	U *
Vinyl chloride	130	130	U *
Bromomethane	130	130	U *
Chloroethane	130	130	U *.
Trichlorofluoromethane	130	130	U *
1,1-Dichloroethene	130	130	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	130	130	U *
Acetone	1300	1300	U *
Carbon Disulfide	130	130	U *
Methyl acetate	130	130	U *
Methylene chloride	130	130	Ú *
trans-1,2-Dichloroethene	130	130	U *
Methyl tert-butyl ether	130	130	U *
1,1-Dichloroethane	130 .	130	U *
cis-1,2-Dichloroethene	130	130	U * .
2-Butanone	1300	1300	U *
Bromochloromethane	130	130	U *
Chloroform	130	130	U *
1,1,1-Trichloroethane	130	130	U *
Cyclohexane	130	230	*
Carbon tetrachloride	130	130	U * ·
Benzene	130	1800	
1,2-Dichloroethane	130	130	U *
Trichloroethene	130	130	U *
Methylcyclohexane	130	210	*
1,2-Dichloropropane	130	130	U *
Bromodichloromethane	130	130 .	U * -
cis-1,3-Dichloropropene	130	130	U *
4-Methyl-2-pentanone	1300	1300	U *
Toluene	130	130	U *
trans-1,3-Dichloropropene	130	130	U *
1,1,2-Trichloroethane	130	130	Ū*
Tetrachloroethene	130	130	U *
2-Hexanone	1300	1300	U *
Dibromochloromethane	130	130	U *
1,2-Dibromoethane	130	130	U *
Chlorobenzene	130	130	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP1DL	
STATION LOCATION		MW-16	•
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	130	130	U *
o-Xylene	130	130	Ū*
m,p-Xylene	130	130	Ū *
Styrene	130	130	. U*
Bromoform	130	130	U *
isopropylbenzene	130	130	\U *
1,1,2,2-Tetrachloroethane	130	130	U *
1,3-Dichlorobenzene	130	130	U *
1,4-Dichlorobenzene	130	130	U *
1,2-Dichlorobenzene	130	130	U *
1,2-Dibromo-3-chloropropane	130	130	U *
1,2,4-Trichlorobenzene	130	130	U *
1,2,3-Trichlorobenzene	130	130	U *
1.3-Dichloropropane	130	130	υ *
n-Butylbenzene	130	130	U *
sec-Butylbenzene	130	130	\υ *
tert-Butylbenzene	130	130	Ū *
2-Chlorotoluene	130	130	U * .
4-Chlorotoluene	130	130	U *
Dibromomethane	130	130	U *
1,3,5-Trimethylbenzene	130	130	U*
2,2-Dichloropropane	130	130	U *
1,1-Dichloropropene	130	130	U *
Hexachlorobutadiene	130	130	U *
p-Isopropyltoluene	130	130	U *
Naphthalene	130	61) *
n-Propylbenzene	130	130	U *
1,1,1,2-Tetrachloroethane	130	130	U *
1,2,3-Trichloropropane	130	130	U.*
1,2,4-Trimethylbenzene	130	130	U *
Bromobenzene	130	130	U *

Volume (ml):

25

Dilution Factor:

250

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP1 (SIM)
STATION LOCATION		MW-16	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml):

25

Dilution Factor:

25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

T. Fan Reviewer:

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP2	
STATION LOCATION		MW-17	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ ·
Bromomethane	13	13	UJv
Chloroethane	13.	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	υ
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U ·
2-Butanone	130	130	U ·
Bromochloromethane	13	13	U ·
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	370	
Carbon tetrachloride	13	13	U
Benzene	13	2200	*
1,2-Dichloroethane	13	13	ĮU
Trichloroethene	13	13	U
Methylcyclohexane	13	230	
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	13	υ
trans-1,3-Dichloropropene	13	13	บ
1,1,2-Trichloroethane	13	13	Ú
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Case No.:

42498

SDG:

Laboratory:

A4

Matrix: Water

Units:

Reviewer:

ug/L

EPA SAMPLE No.	·	F5MP2	
STATION LOCATION		MW-17	
7	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	13	320	
o-Xylene	13	13	* .
m,p-Xylene	13	310	
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	16	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	บ
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	υ
1,2-Dibromo-3-chloropropane	13	13	U *
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	υ
1,3-Dichloropropane	13 .	13	υ
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	13	U
2-Chlorotoluene	13	13	U
4-Chiorotoluene	13.	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	84	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-lsopropyltoluene	13	13	U
Naphthalene	13	76	
n-Propylbenzene	13	27	
1,1,1,2-Tetrachloroethane	13	13	ĮU .
1,2,3-Trichloropropane	13	13	U.
1,2,4-Trimethylbenzene	13	240	
Bromobenzene	13	13	U ·

Volume (ml):

25

Dilution Factor:

25

Case No.:

42498

F5MP0 SDG:

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP2DL	
STATION LOCATION		MW-17	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	130	130	U *
Chloromethane	130	130	U *
Vinyl chloride	130	130	U *
Bromomethane	130	130	U *
Chloroethane	130	130	U *
Trichlorofluoromethane	130	130	U *
1,1-Dichloroethene	130	130	Ū*
1,1,2-Trichloro-1,2,2-trifluoroethane	130	130	U *
Acetone	1300	1300	U *
Carbon Disulfide	130	130	U *
Methyl acetate	130	130	U *
Methylene chloride	130	130	Ū*
trans-1,2-Dichloroethene	130	130	U *
Methyl tert-butyl ether	130	130	บ *
1,1-Dichloroethane	130	130	U *
cis-1,2-Dichloroethene	130	130	U *
2-Butanone	1300	1300	U *
Bromochloromethane	130	130	U *·
Chloroform	130	130	U *
1,1,1-Trichloroethane	130	130	U *
Cyclohexane	130	320	*
Carbon tetrachloride	130	130	U *
Benzene	130	2500	
1,2-Dichloroethane	130	130	U *
Trichloroethene	130	130	Ú*
Methylcyclohexane	130	210	*
1,2-Dichloropropane	130	130	U *
Bromodichloromethane	130	130	U *
cis-1,3-Dichloropropene	130	130	U *
4-Methyl-2-pentanone	1300	1300	U *
Toluene	130	130	U *
trans-1,3-Dichloropropene	130	130	U *
1,1,2-Trichloroethane	130	130	U *
Tetrachloroethene	130	130	U *
2-Hexanone	1300.	1300	[U *
Dibromochloromethane	130	130]∪ *
1,2-Dibromoethane	130	130	U *
Chlorobenzene	130	130	U *

Case No.:

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	·	F5MP2DL	
STATION LOCATION		MW-17	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	130	260	*
o-Xylene	130	130	U *
m,p-Xylene	130	280	*
Styrene	130	130	υ *
Bromoform	130	130	U *
Isopropylbenzene	130	130	U *
1,1,2,2-Tetrachloroethane	130	130	U * -
1,3-Dichlorobenzene	130	130	U *
1,4-Dichlorobenzene	130	130	U *
1,2-Dichlorobenzene	130	130	U *
1,2-Dibromo-3-chloropropane	130	130	U *
1,2,4-Trichlorobenzene	130	130	U *
1,2,3-Trichlorobenzene	130	130	U *
1,3-Dichloropropane	130	130	U *
n-Butylbenzene	130	130	U *
sec-Butylbenzene	130	130	U *
tert-Butylbenzene	130	130	U *
2-Chlorotoluene	130	130	U *
4-Chlorotoluene	130	130	U *
Dibromomethane	130	130	U *
1,3,5-Trimethylbenzene	130	130	U *
2,2-Dichloropropane	130	130	ับ *
1,1-Dichloropropene	130	130	U *
Hexachlorobutadiene	130	130	U.*
p-Isopropyltoluene	130	130	U *
Naphthalene	130	100	*
n-Propylbenzene	130	130	U *
1,1,1,2-Tetrachloroethane	130	130	U *
1,2,3-Trichloropropane	130	130	U *
1,2,4-Trimethylbenzene	130	190	*
Bromobenzene	130	130	U *

Volume (ml):

25

Dilution Factor:

250

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP2 (SIM	1)
STATION LOCATION		MW-17	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	UJv

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

F5MP0

Case No.:

42498

SDG:

T. Fan Reviewer:

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP3	
STATION LOCATION		MW-18	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U .
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ .
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	υ
2-Butanone	130	130	U
Bromochloromethane	13	13	U ·
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	1400	*
Carbon tetrachloride	13	13	ĮU
Benzene	13	8200	*
1,2-Dichloroethane	13	13	JU .
Trichloroethene	13	13	U
Methylcyclohexane	13	800	*
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U .
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	3100	*
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	Įυ
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MP3	
STATION LOCATION		MW-18	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	13	860	*
o-Xylene	13	510	J
m,p-Xylene	13	2700	*
Styrene	13	13	ĮŪ
Bromoform	13	13	U
Isopropylbenzene	13	47	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	ļu
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	์ บ
n-Butylbenzene	13	13	U
sec-Butylbenzene	√13	13	ļυ
tert-Butylbenzene	13	13	U
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	Įυ
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	180	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	Įυ
Hexachlorobutadiene	13	13	Įυ
p-Isopropyltoluene	13	13	U
Naphthalene	13	130	
n-Propylbenzene	13	44	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	420	
Bromobenzene	13	13	∤U

Volume (ml):

25

Dilution Factor:

25

Case No. :

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

	EPA SAMPLE No.		F5MP3DL	
S	TATION LOCATION		MW-18	
		ADJ		
	Volatile	CRQL	RESULT	FLAG
Dichloroc	lifluoromethane	630	630	Ų *
Chlorome	ethane	630	630	U *
Vinyl chlo		630	630	U *
Bromome		630	630	U *
Chloroeth		630	630	U *
1	fluoromethane	630	630	U *
1 '	oroethene	630	630	U *
	chloro-1,2,2-trifluoroethane	630	630	U *
Acetone		6300	6300	Ų *
Carbon D		630	630	U *
Methyl ad		630	630	U *
1 /	e chloride	630	630	U *
	-Dichloroethene	630	630	U *
	rt-butyl ether	630	630	U *
	oroethane	630	630	U *
	ichloroethene	630	630	U *
2-Butano		6300	6300	U *
	loromethane	630	630	U *
Chlorofor		630	630	U *
	chloroethane	630	630	U *
Cyclohex		630	1600	
	etrachloride	630	630	U *
Benzene		630	21000	
	oroethane	630	630	U *
Trichloro		630	630	U *
	clohexane	630	1100	
	oropropane	630	630	U *
	chloromethane	630	630	U *
	ichloropropene	630	630	U *
	2-pentanone	6300	6300	U *-
Toluene		630	3900	
	-Dichloropropene	630	630	U *
	chloroethane	630	630	U *
1	roethene	630	630	U *
2-Hexand		6300	6300	U *
	chloromethane	630	630	U *
	moethane	630	630	U *
Chlorobe	nzene	630	630	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP3DL	
STATION LOCATION		MW-18	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	630	850	
o-Xylene	630	630	U *
m,p-Xylene	630	2900	}
Styrene	630	630	U *
Bromoform	630	630	U.*
Isopropylbenzene	630	630	U *
1,1,2,2-Tetrachloroethane	630	630	U *
1,3-Dichlorobenzene	630	630	U *
1 4-Dichlorobenzene	630	630	U * · ·
1,2-Dichlorobenzene	630	630	U *
1,2-Dibromo-3-chloropropane	630	630	U *
1,2,4-Trichlorobenzene	630	630	U *
1,2,3-Trichlorobenzene	630	630	U *
1,3-Dichloropropane	630	630	U *
n-Butylbenzene	630	630	U *
sec-Butylbenzene	630	630	{U *
tert-Butylbenzene	630	630	U *
2-Chlorotoluene	630	630	U *
4-Chlorotoluene	630	630	U *
Dibromomethane	630	630	U *
1,3,5-Trimethylbenzene	630	630	U *
2,2-Dichloropropane	630	630	\U *
1,1-Dichloropropene	630	630	U *
Hexachlorobutadiene	630	630	U *
p-isopropyltoluene	630	630	U *
Naphthalene	630	320	* .
n-Propylbenzene	630	630	U *
1,1,1,2-Tetrachloroethane	630	630	U *
1,2,3-Trichloropropane	630	630	\U *
1,2,4-Trimethylbenzene	630	410	*
Bromobenzene	630	630	U *

Volume (ml):

25

Dilution Factor:

1250

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

F5MP0

Case No.:

42498

SDG:

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP3 (SIN	1)
STATION LOCATION		MW-18	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	JU.,
1,2-Dibromo-3-chloropropane	1.3	1.3	[U "

Volume (ml):

25

Dilution Factor:

25

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP4	
STATION LOCATION		MW-4	I
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	luj
Bromomethane	0.50	0.50	UJv .
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	υ
Methyl tert-butyl ether	0.50	0.50	U
1.1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	3.5	-
Carbon tetrachloride	0.50	0.50	ุบป
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	UJv
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	UJv
1,1,2-Trichloroethane	0.50	0.50	UJv
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	6.1	
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG:

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP4	
STATION LOCATION		MW-4	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene		0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.58	
1,1,2,2-Tetrachloroethane	0.50	0.50	Įυ
1,3-Dichlorobenzene	0.50	0.50	ĮU
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	ĮU
sec-Butylbenzene	0.50	0.50	Įυ
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	ĮU
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	ĮU
1,1-Dichloropropene	0.50	0.50	U .
Hexachlorobutadiene	0.50	0.50	ĮU
p-isopropyitoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachioroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	Įυ
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

1

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP4 (SIM	1)
STATION LOCATION		MW-4	<u> </u>
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP4RE (SIM)		
STATION LOCATION		MW-4		
Volatile	ADJ CRQL	RESULT	FLAG	
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	U * U *	

Volume (ml):

25

Dilution Factor:

1

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP5	
STATION LOCATION		MW-9	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	υ
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U ·
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	ប
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U .
1,1,1-Trichloroethane	0.50	0.50	U -
Cyclohexane	0.50	19	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	1.1	
Methylcyclohexane	0.50	49	*
1,2-Dichloropropane	0.50	0.50	U-
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	1.1	
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	Ü*
Chlorobenzene	0.50	0.50	Ü

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP5	
STATION LOCATION		MW-9	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.91	
o-Xylene	0.50	0.50	U
m,p-Xylene .	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U -
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U l
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

Case No. :

42498

SDG: F5MP0 Reviewer: T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP5DL	
STATION LOCATION		MW-9	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	2.5	2.5	U*
Chloromethane	2.5	2.5	U *
Vinyl chloride	2.5	2.5	Ū *
Bromomethane	2.5	2.5	U *
Chloroethane	2.5	2.5	U *
Trichlorofluoromethane	2.5	2.5	U *
1,1-Dichloroethene	2.5	2.5	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	2.5	U *
Acetone	25	25	U * -
Carbon Disulfide	2.5	2.5	U *
Methyl acetate	2.5	2.5	U *
Methylene chloride	2.5	2.5	U * ·
trans-1,2-Dichloroethene	2.5	2.5	U *
Methyl tert-butyl ether	2.5	2.5	U *
1,1-Dichloroethane	2.5	2.5 2.5	U *
cis-1,2-Dichloroethene	2.5	2.5	U *
2-Butanone	25	25	U *
Bromochloromethane	2.5	2.5	U *
Chloroform	2.5	2.5	U *
1,1,1-Trichloroethane	2.5	2.5	U *
Cyclohexane	2.5	12	*
Carbon tetrachloride	2.5	2.5	U *
Benzene	2.5	2.5	Ū*
1,2-Dichloroethane	2.5	2.5	U *
Trichloroethene	2.5	1.2	*
Methylcyclohexane	2.5	39	
1,2-Dichloropropane	2.5	2.5	U* .
Bromodichloromethane	2.5	2.5	U *
cis-1,3-Dichloropropene	2.5	2.5	U *
4-Methyl-2-pentanone	25	25	U *
Toluene	2.5	2.5	U *
trans-1,3-Dichloropropene	2.5	2.5	U *
1,1,2-Trichloroethane	2.5	2.5	U *
Tetrachloroethene	2.5	0.98	*
2-Hexanone	25	25	U *
Dibromochloromethane	2.5	2.5	U *
1,2-Dibromoethane	2.5	2.5	U *
Chlorobenzene	2.5	2.5	U *

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	l	F5MP5DL	
STATION LOCATION		MW-9	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	2.5	2.5	U*
o-Xylene	2.5	2.5	U *
m,p-Xylene	2.5	2.5	U *
Styrene	2.5	2.5	U *
Bromoform	2.5	2.5	U *
Isopropylbenzene	2.5	2.5	U * .
1,1,2,2-Tetrachloroethane	2.5	2.5	U *.
1,3-Dichlorobenzene	2.5	2.5	U *
1,4-Dichlorobenzene	2.5	2.5	U *
1,2-Dichlorobenzene	2.5	2.5	U *
1,2-Dibromo-3-chloropropane	2.5	2.5	U *
1,2,4-Trichlorobenzene	2.5	2.5	U *
1,2,3-Trichlorobenzene	2.5	2.5	U *
1,3-Dichloropropane	2.5	2.5	U *
n-Butylbenzene	2.5	2.5	U *
sec-Butylbenzene	2.5	2.5	U *
tert-Butylbenzene	2.5	2.5	U *
2-Chlorotoluene	2.5	2.5	U *
4-Chlorotoluene	2.5	2.5	U *
Dibromomethane	2.5	2.5	U *
1,3,5-Trimethylbenzene	2.5	2.5	U *
2,2-Dichloropropane	2.5	2.5	บ *
1,1-Dichloropropene	2.5	2.5	U *
Hexachlorobutadiene	2.5	2.5	U *
p-Isopropyltoluene	2.5	2.5	U *
Naphthalene	2.5	2.5	U *
n-Propylbenzene	2.5	2.5	U * .
1,1,1,2-Tetrachloroethane	2.5	2.5	U *
1,2,3-Trichloropropane	2.5	2.5	U *
1,2,4-Trimethylbenzene	2.5	2.5	U *
Bromobenzene	2.5	2.5	U *

Volume (ml):

25

Dilution Factor:

5

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP5 (SIN	1)
STATION LOCATION		MW-9	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	U UJv

Volume (ml):

25

Dilution Factor:

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP5RE (SIM)		
STATION LOCATION	MW-9			
Volatile	ADJ CRQL	RESULT	FLAG	
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	U *	

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

T. Fan Reviewer:

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP6	
STATION LOCATION		MW-19	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U *
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U *
Acetone	130	130	U
Carbon Disulfide	13	13	JU -
Methyl acetate	13	13	U *
Methylene chloride	13	12	*
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U *
1.1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U *
Cyclohexane	13	540	*
Carbon tetrachloride	13	13	U *
Benzene	13	3200	l
1,2-Dichloroethane	13	13	U *
Trichloroethene	13	13	U
Methylcyclohexane	13	290	l
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	υ
Toluene	13	27	l
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	Ų.
Tetrachloroethene	13	13	Ų.
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U.
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Case No.:

42498

SDG:

T. Fan Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP6	
STATION LOCATION		MW-19	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	13	410	
o-Xylene	13	18	
m,p-Xylene	13	520	*
Styrene	13	13	U
Bromoform	13	13	ĮU .
Isopropylbenzene	13	21	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	υ
n-Butylbenzene	13	13	υ
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	34	N
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13 .	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	72	
2,2-Dichloropropane	13	13	เบ
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	130	
n-Propylbenzene	13	33	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	250	
Bromobenzene	13	13	U

Volume (ml):

25

Dilution Factor:

25

Case No.;

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

	EPA SAMPLE No.		F5MP6DL	
	STATION LOCATION		MW-19	
		ADJ		
	Volatile	CRQL	RESULT	FLAG
Dichlo	rodifluoromethane	250	250	U *
	methane	250	250	U *
	chloride	250	250	Ŭ *
	methane	250	250	U *
	ethane	250	250	U *
	rofluoromethane	250	250	U
	chloroethene	250	250	U *
1,1,2-7	Frichloro-1,2,2-trifluoroethane	250	250	U
Acetor		2500	2500	U *
	n Disulfide	250	250	U *
Methyl	acetate	250	250	U
	ene chloride	250	250	U
trans-1	,2-Dichloroethene	250	250	U *
Methyl	tert-butyl ether	250	250	U
1,1-Did	chloroethane	250	250	U *
cis-1,2	-Dichloroethene	250	250	U*
2-Buta	none	2500	2500	U *
Bromo	chloromethane	250	250	U* ·
Chloro		250	250	U *
1,1,1-7	[richloroethane	250	250	U
	nexane	250	570	
Carbo	n tetrachloride	250	250	UJ
Benze		250	3900	
1,2-Did	chloroethane	250	250	U
	roethene	250	250	U *
Methyl	cyclohexane	250	270	*
1,2-Dic	chloropropane	250	250	U *
Bromo	dichloromethane	250	250	U *
cis-1,3	-Dichloropropene	250	250	U *
4-Meth	yl-2-pentanone	2500	2500	U *
Toluer	e	250	46	*
trans-1	,3-Dichloropropene	250	250	U *
	Frichloroethane	250	250	U *
Tetrac	hloroethene	250	250	U *
2-Hexa	anone	2500	2500	Ú *
	nochloromethane	250	250	U*
1,2-Dil	oromoethane	250	250	U *
	benzene	250	250	U *

Case No.:

42498

SDG:

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP6DL	
STATION LOCATION		MW-19	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	250	370	*
o-Xylene	250	250	U *
m,p-Xylene	250	480	
Styrene	250	250	U *
Bromoform	250	250	U *
Isopropylbenzene	250	250	U *
1,1,2,2-Tetrachloroethane	250	250	U *
1,3-Dichlorobenzene	250	250	U *
1,4-Dichlorobenzene	250	250	U *
1,2-Dichlorobenzene	250	250	U *
1,2-Dibromo-3-chloropropane	250	250	U *
1,2,4-Trichlorobenzene	250	250	U *
1,2,3-Trichlorobenzene	250	250	U *
1,3-Dichloropropane	250	250	U *
n-Butylbenzene	250	250	U *
sec-Butylbenzene	250	250	U *
tert-Butylbenzene	250	250 .	U *
2-Chlorotoluene	250	250	U *
4-Chlorotoluene	250	250	U *
Dibromomethane	250	250	U∗*
1,3,5-Trimethylbenzene	250	250	U *
2,2-Dichloropropane	250	250	U *
1,1-Dichloropropene	250	250	U *
Hexachlorobutadiene	250	250	U *
p-isopropyltoluene	250	250	U *
Naphthalene	250	170	*
n-Propylbenzene	250	250	U *
1,1,1,2-Tetrachloroethane	250	250	υ *
1,2,3-Trichloropropane	250	250	U *
1,2,4-Trimethylbenzene	250	200	*
Bromobenzene	250	250	U *

Volume (ml):

25

Dilution Factor:

500

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP6 (SIM)
STATION LOCATION		MW-19	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml):

25

Dilution Factor:

25

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP7	
STATION LOCATION		MW-20	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	Įυ
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	υ
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	2.4	
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U .
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U .
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U -∤
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	Ų

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP7	
STATION LOCATION		MW-20	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	 U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	UJv
1,3-Dichlorobenzene	0.50	0.50	ĮU
1,4-Dichlorobenzene	0.50	0.50	ĮU
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U .
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U ·
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	1.0	UM
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP7 (SIM)
STATION LOCATION		MW-20	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	η η

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP8	
STATION LOCATION		MW-21	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	υ
Trichlorofluoromethane	0.50	0.50	ļυ
1,1-Dichloroethene	0.50	0.50	Įυ
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	ļυ
Carbon Disulfide	0.50	0.50	Įυ `
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	ļυ
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	υ
1.1-Dichloroethane	0.50	0.50	υ
cis-1,2-Dichloroethene	0.50	0.78	}
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	Įυ
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	1.1	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.53	
Trichloroethene	0.50	2.3	J۸
Methylcyclohexane	0.50	130	*
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	UJv
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	UJv
1,1,2-Trichloroethane	0.50	0.50	UJv
Tetrachloroethene	0.50	1.2	J^
2-Hexanone	5.0	5.0	Įυ
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Case No. :

42498

SDG: F5MP0 Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	Γ	F5MP8	
STATION LOCATION		MW-21	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	5.9	J۸
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	2.0	J^
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.27	LJ
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	1.8	UM
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U .
1,2,4-Trimethylbenzene	0.50	1.6	N
Bromobenzene	0.50	0.50	U -

Volume (mi):

25

Dilution Factor:

Case No.:

42498

SDG:

F5MP0 Reviewer: T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

i	EPA SAMPLE No.	1	F5MP8DL	,
	STATION LOCATION		MW-21	
		ADJ		
	Volatile	CRQL	RESULT	FLAG
-	Dichlorodifluoromethane	5.0	5.0	U *
1	Chloromethane	5.0	5.0	Ū *
1	Vinyl chloride	5.0	5.0	U *
1	Bromomethane	5.0	5.0	U *
1	Chloroethane .	5.0	5.0	U *
Į	Trichlorofluoromethane	5.0	5.0	U *
	1,1-Dichloroethene	5.0	5.0	U *
	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	5.0	U *
1	Acetone	50	50	U *
1	Carbon Disulfide	5.0	5.0	U* .
1	Methyl acetate	5.0	5.0	U *
1	Methylene chloride	5.0	2.3	*
١	trans-1,2-Dichloroethene	5.0	5.0	U *
	Methyl tert-butyl ether	5.0	5.0	U *
	1,1-Dichloroethane	5.0	5.0	U *
1	cis-1,2-Dichloroethene	5.0	5.0	U *
-	2-Butanone	50	50	U *
1	Bromochloromethane	5.0	5.0	U *
1	Chloroform	5.0	5.0	U *
1	1,1,1-Trichloroethane	5.0	5.0	U *
	Cyclohexane	5.0	5.0	U *
	Carbon tetrachloride	5.0	5.0	U *
ĺ	Benzene	5.0	5.0	U * `
	1,2-Dichloroethane	5.0	5.0	U *
ı	Trichloroethene	5.0	2.7	*
١	Methylcyclohexane	5.0	120	
1	1,2-Dichloropropane	5.0	5.0	U *
	Bromodichloromethane	5.0	5.0	U *
ı	cis-1,3-Dichloropropene	5.0	5.0	U *
	4-Methyl-2-pentanone	50	50	U *
1	Toluene	5.0	5.0	U *
İ	trans-1,3-Dichloropropene	5.0	5.0	U *
	1,1,2-Trichloroethane	5.0	5.0	U *
	Tetrachloroethene	5.0	5.0	Ų *
	2-Hexanone	50	50	U *
]	Dibromochloromethane	5.0	5.0	U *
	1,2-Dibromoethane	5.0	5.0	U *
	Chlorobenzene	5.0	5.0	U *

F5MP0

Case No.:

42498

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP8DL	
STATION LOCATION		MW-21	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	5.0	5.4	*
o-Xylene	5.0	5.0	U.*
m,p-Xylene	5.0	5.0	U *
Styrene	5.0	5.0	U *
Bromoform	5.0	5.0	U *
Isopropylbenzene	5.0	5.0	U *
1,1,2,2-Tetrachloroethane	5.0	5.0	Ú *
1,3-Dichlorobenzene	5.0	5.0	U *
1,4-Dichlorobenzene	5.0	5.0	U *
1,2-Dichlorobenzene	5.0	5.0	U *
1,2-Dibromo-3-chloropropane	5.0	5.0	U *
1,2,4-Trichlorobenzene	5.0	5.0	U *
1,2,3-Trichlorobenzene	5.0	5.0	U *
1,3-Dichloropropane	5.0	5.0	U *
n-Butylbenzene	5.0	5.0	U *
sec-Butylbenzene	5.0	5.0	U *
tert-Butylbenzene	5.0	5.0	U *
2-Chlorotoluene	5.0	5.0	Ū*
4-Chlorotoluene	5.0	5.0	U *
Dibromomethane	5.0	5.0	U *
1,3,5-Trimethylbenzene	5.0	5.0	U *
2,2-Dichloropropane	5.0	5.0	U *
1,1-Dichloropropene	5.0	5.0	U *
Hexachlorobutadiene	5.0	5.0	U *
p-Isopropyltoluene	5.0	5.0	U *
Naphthalene	5.0	5.0	U *
n-Propylbenzene	5.0	5.0	U *
1,1,1,2-Tetrachloroethane	5.0	5.0	υ*.
1,2,3-Trichloropropane	5.0	5.0	U *
1,2,4-Trimethylbenzene	5.0	5.0	U *
Bromobenzene	5.0	5.0	U *

Volume (ml):

25

Dilution Factor:

10

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4.

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP8 (SIM)
STATION LOCATION		MW-21	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP8RE (SIM)		
STATION LOCATION	MW-21			
Volatile	ADJ CRQL	RESULT	FLAG	
1,2-Dibromoethane	0.050	0.050	U *	
1,2-Dibromo-3-chloropropane	0.050	0.050	U *	

Volume (ml):

25

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer: T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP9	
STATION LOCATION		MW-22	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	υ
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	lυ
cis-1,2-Dichloroethene	0.50	0.28	LJ
2-Butanone	5.0	5.0	U
Bromochloromethane.	0.50	0.50	U
Chloroform	0.50	0.50	υ
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	1.2	
Methylcyclohexane	0.50	0.50	Įυ
1,2-Dichloropropane	0.50	0.50	Ü
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	lυ
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	1.3	
2-Hexanone	5.0	5.0	lυ
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U ·

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MP9	
STATION LOCATION		MW-22	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	υ
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U .
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	υ
1,2-Dibromo-3-chloropropane	0.50	0.50	υ *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	บ
n-Butylbenzene	0.50	0.50	บ
sec-Butylbenzene	0.50	0.50	บ
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	υ
4-Chlorotoluene	0.50	0.50	υ
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	JU J
2,2-Dichloropropane	0.50	0.50	U :
1,1-Dichloropropene	0.50	0.50	ļυ -
Hexachlorobutadiene	0.50	0.50	U
p-isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U .
1,1,1,2-Tetrachloroethane	0.50	0.50	U.
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U ,
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

Case No. :

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP9 (SIM	l)
STATION LOCATION		MW-22	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	UJv
1,2-Dibromo-3-chloropropane	0.050	10.050	UJv

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

F5MP0

Case No.:

42498

SDG:

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP9RE (S	SIM)
STATION LOCATION		MW-22	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	TU *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml):

25

Dilution Factor:

1

Case No.:

42498

SDG:

F5MP0

T. Fan Reviewer:

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ0	
STATION LOCATION		MW-21-D	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	บ
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.73	
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	1.0	
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.33	LJ
1,2-Dichloroethane	0.50	0.48	LJ
Trichloroethene	0.50	2.2	:
Methylcyclohexane	0.50	120	*
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	1.1	
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	υ
1,2-Dibromoethane	0.50	0.50	Ŭ*
Chlorobenzene	0.50	0.50	U

Case No.:

42498

SDG: F5MP0

Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MQ0	
STATION LOCATION		MW-21-D	
	ADJ	<u>"</u>	
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	5.6	
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	1.9	
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	Įυ
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	ĮU
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	Įυ
Naphthalene	0.50	2.2	UM .
n-Propylbenzene	0.50	2.5	
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U -
1,2,4-Trimethylbenzene	0.50	0.50	υ
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ0DL	
STATION LOCATION		MW-21-D	
·	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	5.0	5.0	U *
Chloromethane	5.0	5.0	U *
Vinyl chloride	5.0	5.0	U *
Bromomethane	5.0	5.0	U *
Chloroethane	5.0	5.0	U *
Trichlorofluoromethane	5.0	5.0	U *
1,1-Dichloroethene	5.0	5.0	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	5.0	ับ *
Acetone	50	50	U *
Carbon Disulfide	5.0	5.0	U *
Methyl acetate	5.0	5.0	U *
Methylene chloride	5.0	5.0	U *
trans-1,2-Dichloroethene	5.0	5.0	U *
Methyl tert-butyl ether	5.0	5.0	U *
1.1-Dichloroethane	5.0	5.0	U *
cis-1,2-Dichloroethene	5.0	5.0	U *
2-Butanone	50	50	U *
Bromochloromethane	5.0	5.0	U *
Chloroform	5.0	5.0	U *
1,1,1-Trichloroethane	5.0	5.0	U *
Cyclohexane	5.0	5.0	บ *
Carbon tetrachloride	5.0	5.0	U *
Benzene	5.0	5.0	U *
1,2-Dichloroethane	5.0	5.0	U *
Trichloroethene	5.0	2.9	*
Methylcyclohexane	5.0	120	• .
1,2-Dichloropropane	5.0	5.0	U *
Bromodichloromethane	5.0	5.0	U *
cis-1,3-Dichloropropene	5.0	5.0	U *
4-Methyl-2-pentanone	50	50	U*
Toluene	5.0	5.0	U *
trans-1,3-Dichloropropene	5.0	5.0	Ų *
1,1,2-Trichloroethane	5.0	5.0	U *
Tetrachloroethene	5.0	5.0	U *
2-Hexanone	50	50	U *
Dibromochloromethane	5.0	5.0	U *
1,2-Dibromoethane	5.0	5.0	U *
Chlorobenzene	5.0	5.0	U *

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ0DL.	
STATION LOCATION		MW-21-D	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	5.0	5.7	*
o-Xylene	5.0	5.0	U *
m,p-Xylene	5.0	5.0	U *
Styrene	5.0	5.0	U *
Bromoform	5.0	5.0	U *
Isopropylbenzene	5.0	5.0	U *
1,1,2,2-Tetrachloroethane	5.0	5.0	U *
1,3-Dichlorobenzene	5.0	5.0	U *
1,4-Dichlorobenzene	5.0	5.0	U *
1,2-Dichlorobenzene	5.0	5.0	U *
1,2-Dibromo-3-chloropropane	5.0	5.0	U *
1,2,4-Trichlorobenzene	5.0	5.0	U * .
1,2,3-Trichlorobenzene	5.0	5.0	U *
1,3-Dichloropropane	5.0	5.0	U *
n-Butylbenzene	5.0	5.0	U *
sec-Butylbenzene	5.0	5.0	U *
tert-Butylbenzene	5.0	5.0	U *
2-Chlorotoluene	5.0	5.0	U *
4-Chlorotoluene	5.0	5.0	U *
Dibromomethane	5.0	5.0	U *
1,3,5-Trimethylbenzene	5.0	5.0	U *
2,2-Dichloropropane	5.0	5.0	U * .
1,1-Dichloropropene	5.0	5.0	U *
Hexachlorobutadiene	5.0	5.0	U *
p-Isopropyltoluene	5.0	5.0	U *
Naphthalene	5.0	2.9	* .
n-Propylbenzene	5.0	5.0	U *
1,1,1,2-Tetrachloroethane	5.0	5.0	U *
1,2,3-Trichloropropane	5.0	5.0	U *
1,2,4-Trimethylbenzene	5.0	5.0	U *
Bromobenzene	5.0	5.0	U *

Volume (ml):

25

Dilution Factor:

10

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ0 (SIM)
STATION LOCATION		MW-21-D	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	UJv U

Volume (ml):

25

Dilution Factor:

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MQ0RE (SIM)		
STATION LOCATION	MW-21-D			
Volatile	ADJ CRQL	RESULT	FLAG	
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	U * U *	

Volume (ml):

25

Dilution Factor:

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MQ1	
STATION LOCATION	ļ	MW-4-D	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U ·
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	lo.50	0.50	lu
1,1-Dichloroethene	0.50	0.50	lu
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	lu
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U .
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U ·
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	3.8	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	υ
cis-1,3-Dichloropropene	0.50	0.50	UJv
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	UJv
1,1,2-Trichloroethane	0.50	0.50	UJv
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	6.8	l
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Case No.:

42498

SDG:

T. Fan

Laboratory:

Matrix: Water

Units:

Reviewer:

ug/L

EPA SAMPLE No.	I	F5MQ1	
STATION LOCATION		MW-4-D	1
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform ·	0.50	0.50	U
Isopropylbenzene	0.50	0.67	
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U .
1,2-Dichlorobenzene	0.50	0.50	บ
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	Įυ
1,2,3-Trichlorobenzene	0.50	0.50	U.
1,3-Dichloropropane	0.50	0.50	U
л-Butylbenzene	0.50	0.50	U .,
sec-Butylbenzene	0.50	0.50	U U
tert-Butylbenzene	0.50	0.50	υ -
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	υ
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	υ

Volume (ml):

25

Dilution Factor:

1

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

Α4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MQ1 (SIN	1)
STATION LOCATION		MW-4-D	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	UJv U

Volume (ml):

25

Dilution Factor:

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	l	F5MQ5	
STATION LOCATION		TB-1	
'	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ -
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	 U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	lυ
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	lu 💮
Carbon Disulfide	0.50	0.50	lu 💮
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	υ
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	ĮU
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	Įυ
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	ĺυ

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	T I	F5MQ5		
STATION LOCATION		TB-1		
	ADJ	1		
Volatile	CRQL	RESULT	FLAG	
Ethylbenzene	0.50	0.50	U	
o-Xylene	0.50	0.50	U	
m,p-Xylene	0.50	0.50	U	
Styrene	0.50	0.50	U	
Bromoform	0.50	0.50	U	
Isopropylbenzene	0.50	0.50	U	
1,1,2,2-Tetrachloroethane	0.50	0.50	U	
1,3-Dichlorobenzene	0.50	0.50	U	
1,4-Dichlorobenzene	0.50	0.50	U	
1,2-Dichlorobenzene	0.50	0.50	U	
1,2-Dibromo-3-chloropropane	0.50	0.50	U *	
1,2,4-Trichlorobenzene	0.50	0.50	U	
1,2,3-Trichlorobenzene	0.50	0.50	U	
1,3-Dichloropropane	0.50	0.50	U	
n-Butylbenzene	0.50	0.50	U	
sec-Butylbenzene	0.50	0.50	U U	
tert-Butylbenzene	0.50	0.50	U	
2-Chlorotoluene	0.50	0.50	U	
4-Chlorotoluene	0.50	0.50	U	
Dibromomethane	0.50	0.50	U	
1,3,5-Trimethylbenzene	0.50	0.50	U	
2,2-Dichloropropane	0.50	0.50	U	
1,1-Dichloropropene	0.50	0.50	U	
Hexachlorobutadiene	0.50	0.50	U	
p-isopropyitoluene	0.50	0.50	U	
Naphthalene	0.50	0.32	LJ	
n-Propylbenzene	0.50	0.50	U	
1,1,1,2-Tetrachloroethane	0.50	0.50	U -	
1,2,3-Trichloropropane	0.50	0.50	U	
1,2,4-Trimethylbenzene	0.50	0.50	U	
Bromobenzene	0.50	0.50	U	

Volume (ml):

25

Dilution Factor:

1

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ5 (SIN	/ I)
STATION LOCATION		TB-1	
	ADJ		
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	lUJv

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No. :

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ6	
STATION LOCATION		TB-2	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.68	UM
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	υ
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1 1 1-Trichloroethane	0.50	0.50	U ·
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	Ų
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U .

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ6	
STATION LOCATION	7	TB-2	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U .
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U -
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	UJV
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U .
1,3-Dichloropropane	0.50	0.50	U.
n-Butylbenzene	0.50	0.50	U _.
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U -
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.66	
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachioroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer: T. Fan

Laboratory:

Δ4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ6 (SIN	1)
STATION LOCATION		TB-2	
	ADJ		
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml):

25

Dilution Factor:

4

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ7	
STATION LOCATION		FB-1	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	lυ
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U .
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	ŀU
1,1-Dichloroethane	0.50	0.50	Įυ
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U i
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U ·
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	Įυ
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	Įυ
cis-1,3-Dichloropropene	0.50	0.50	υ
4-Methyl-2-pentanone	5.0	5.0	υ
Toluene	0.50	0.27	LJ
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	υ
Tetrachloroethene	0.50	0.50	υ
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Case No. :

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ7	
STATION LOCATION		FB-1	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	υ
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	UJv
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	Ú
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	υ
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U .
sec-Butylbenzene	0.50	0.50	υ
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	υ
4-Chlorotoluene	0.50	0.50	υ
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	υ
2,2-Dichloropropane	0.50	0,50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.66	
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.14	LJ
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T: Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ7 (SIM)	
STATION LOCATION		FB-1	·
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	" U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No. :

42498

SDG: F5MP0

Reviewer: T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ8	
STATION LOCATION		FB-2	<u> </u>
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	υ
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U ·
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	Ü
Benzene	0.50	0.42	LJ
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.38	LJ
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Case No.:

42498

SDG: F5MP0

Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MQ8	
STATION LOCATION		FB-2	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	C
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.33	LJ ′
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U U
Isopropylbenzene	0.50	0.50	U .
1,1,2,2-Tetrachloroethane	0.50	0.50	U .
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U .
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U.
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	Įυ
p-Isopropyltoluene	0.50	0.50	ĮU
Naphthalene	0.50	0.97	
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	ļύ
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4.

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MQ8 (SIN	1)
STATION LOCATION		FB-2	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	IJν

Volume (ml):

25

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

 $\Delta \Delta$

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MQ8RE (SIM)		
STATION LOCATION	FB-2		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	[U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.,:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

.A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP0	
STATION LOCATION		MW-14	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	100	100	U
Aniline	100	100	lυ
Benzaldehyde	50	50	υ
Phenol	50	1900	*
Bis(2-Chloroethyl)ether	50	50	υ
2-Chlorophenol	50	50	lυ
2-Methylphenol	50	1800	*
2,2'-Oxybis(1-chloropropane)	50	50	lυ
Acetophenone	50	50	lυ
4-Methylphenol	50	1200	*
N-Nitroso-di-n-propylamine	50	50	Įυ
Hexachloroethane	50	50	U
Nitrobenzene	50	50	U
Isophorone	50	50	U
2-Nitrophenol	50	50	U .
2,4-Dimethylphenol	50	900	* .
Bis(2-chloroethoxy)methane	50	50	U
2,4-Dichlorophenol	50	50	U
Naphthalene	50	340	*
4-Chloroaniline	50	50	U U
Hexachlorobutadiene	50	50	U *
Caprolactam	50	50	U
4-Chloro-3-methylphenol	50	50	U
2-Methylnaphthalene	50	83	
Hexachlorocyclopentadiene	50	50	U
2,4,6-Trichlorophenol	50	50	U
2,4,5-Trichlorophenol	50	50	U
1,1'-Biphenyl	50	4.2	LJ
2-Chloronaphthalene	50	50	U
2-Nitroaniline	100	100	U
Dimethylphthalate	50	50	U
2,6-Dinitrotoluene	50	50	U
Acenaphthylene	50	50	U *
3-Nitroaniline	100	100	U
Acenaphthene	50	50	U *
2,4-Dinitrophenol	100	100	U
4-Nitrophenol	100	100	U
Dibenzofuran	50	50	U
2,4-Dinitrotoluene	50	50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

F5MP0

Case No.:

42498

SDG:

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP0	
STATION LOCATION		MW-14	
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	50	50	0
Fluorene	50	50	U *
4-Chlorophenyl-phenylether	50	50	ΙŬ
4-Nitroaniline	100	100	ΙŬ
4,6-Dinitro-2-methylphenol	100	100	ΙŬ
N-Nitrosodiphenylamine	50	50	Ŭ.
1,2,4,5-Tetrachlorobenzene	50	50	Ü
4-Bromophenyl-phenylether	50	50	Ü
Hexachlorobenzene	50	50	ΙŬ
Atrazine	50	50	Ιŭ
Pentachlorophenol	100	100	lŭ∗
Phenanthrene	50	50	lū∗
Anthracene	50	50	lū∗
Carbazole	50	50	lŭ '
Di-n-butylphthalate	50	50	lu '
Fluoranthene	50	50	lū∗
Pyrene	50	50	U *
Butylbenzylphthalate	50	50	. lu
3,3'-Dichlorobenzidine	50	50	U
Benzo(a)anthracene	50	50	U *
Chrysene	50	50	U *
Bis(2-ethylhexyl)phthalate	50	50	U U
Di-n-octylphthalate	50	50	U
Benzo(b)fluoranthene	50	50	U *
Benzo(k)fluoranthene	50	50	U *.
Benzo(a)pyrene	50	50	U *
Indeno(1,2,3-cd)pyrene	50	50	U *
Dibenzo(a,h)anthracene	50	50	U *
Benzo(g,h,l)perylene	50	50	U *
2,3,4,6-Tetrachlorophenol	50	50	ĮU .

Volume (ml):

1000

Dilution Factor:

10

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	.]	F5MP0DL	
STATION LOCATION		MW-14	
	ADJ	···	-
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	500	500	U *
Aniline	500	500	Ū *
Benzaldehyde	250	250	U *
Phenol	250	1200	
Bis(2-Chloroethyl)ether	250	250	U *
2-Chlorophenol	250	250	U *·
2-Methylphenol	250	1200	
2,2'-Oxybis(1-chloropropane)	250	250	U * .
Acetophenone	250	250	∪ *
4-Methylphenol	250	830	
N-Nitroso-di-n-propylamine	250	250	U *
Hexachloroethane	250	250	U *
Nitrobenzene	250	250	U *
Isophorone	250	250	U *
2-Nitrophenol	250	250	U *
2,4-Dimethylphenol	250	620	· \
Bis(2-chloroethoxy)methane	250	250	U *
2,4-Dichlorophenol	250	250	บ *
Naphthalene	250	250	*
4-Chloroaniline	250	250	U *
Hexachlorobutadiene	250	250	U *
Caprolactam	250	250	U *
4-Chloro-3-methylphenol	250	250	U *
2-Methylnaphthalene	250	60	* *
Hexachlorocyclopentadiene	250	250	U *
2,4,6-Trichlorophenol	250	250	U *
2,4,5-Trichlorophenol	250	250	U *
1,1'-Biphenyl	250	250	U *
2-Chloronaphthalene	250	250	U *
2-Nitroaniline	500	500	U *
Dimethylphthalate	250	250	U *
2,6-Dinitrotoluene	250	250	U *
Acenaphthylene	250	250	U *
3-Nitroaniline	500	500	U *
Acenaphthene	250	250	\ <u>U</u> *
2,4-Dinitrophenol	500	500	U *
4-Nitrophenol	500	500	U *
Dibenzofuran	250	250	U *
2,4-Dinitrotoluene	250	250	บ *

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Δ1

Matrix: Water

Units:

: ug/L:

4	9	•	-

EPA SAMPLE No.		F5MP0DL	
STATION LOCATION		MW-14	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Diethylphthalate	250	250	U *
Fluorene	250	250	U *
4-Chlorophenyl-phenylether	250	250	U *
4-Nitroaniline	500	500	U *
4,6-Dinitro-2-methylphenol	500	500	U *
N-Nitrosodiphenylamine	250	250	U *
1,2,4,5-Tetrachlorobenzene	250	250	Ü *
4-Bromophenyl-phenylether	250	250	U * _
Hexachlorobenzene	250	250	U *
Atrazine	250	250	U *
Pentachlorophenol	500	500	U *
Phenanthrene	250	250	U *
Anthracene	250	250	U *
Carbazole	250	250	U *
Di-n-butylphthalate	250	250	U *
Fluoranthene	250	250	U *
Pyrene	250	250	U *
Butylbenzylphthalate	250	250	U *
3,3'-Dichlorobenzidine	250	250	U *
Benzo(a)anthracene	250	250	U *
Chrysene	250	250	U *
Bis(2-ethylhexyl)phthalate	250	250	U *
Di-n-octylphthalate	250	250	U *
Benzo(b)fluoranthene	250	250	U *
Benzo(k)fluoranthene	250	250	[υ *.
Benzo(a)pyrene	250	250	U * .
Indeno(1,2,3-cd)pyrene	250	250	U *
Dibenzo(a,h)anthracene	250	250	U *
Benzo(g,h,l)perylene	250	250	U *
2,3,4,6-Tetrachlorophenol	250	250	U *.

Volume (ml):

1000

Dilution Factor:

50

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP0 (SIN	1)
STATION LOCATION		MW-14	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	1.0	240	*
2-Methylnaphthalene	1.0	140	*
Acenaphthylene	1.0	1.0	U
Acenaphthene	1.0	1.0	U ·
Fluorene	1.0	0.49	LJ
Pentachlorophenol	2.0	2.0	Įυ
Phenanthrene	1.0	1.0	U
Anthracene	1.0	1.0	Įυ
Fluoranthene	1.0	1.0	U
Pyrene	1.0	1.0	U
Benzo(a)anthracene	1.0	1.0	lυ
Chrysene	1.0	1.0	U
Benzo(b)fluoranthene	1.0	1.0	U
Benzo(k)fluoranthene	1.0	1.0	U
Benzo(a)pyrene	1.0	1.0	lυ
Indeno(1,2,3-cd)pyrene	1.0	1.0	U
Dibenzo(a,h)anthracene	1.0	1.0	Įυ
Benzo(g,h,l)perylene	1.0	1.0	U

Volume (ml):

1000

Dilution Factor:

10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP0DL (SIM)		
STATION LOCATION		MW-14	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	40	330	*
2-Methylnaphthalene	40	99	* .
Acenaphthylene	40	40	U *
Acenaphthene	40	40	U *
Fluorene	40	40	U *
Pentachlorophenol	80	80	U *
Phenanthrene	40	40	U *
Anthracene	40	40	U *
Fluoranthene	40	40	U *
Pyrene	40	40	U *
Benzo(a)anthracene	40 .	40	U *
Chrysene	40	40	U *
Benzo(b)fluoranthene	40	40	U *
Benzo(k)fluoranthene	40	40	U *
Benzo(a)pyrene	40	40	U *
Indeno(1,2,3-cd)pyrene	40	40	U *
Dibenzo(a,h)anthracene	40	40	U *
Benzo(g,h,l)perylene	40	40	U *

Volume (ml):

1000

Dilution Factor:

400

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	I	F5MP1	
STATION LOCATION		MW-16	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	200	200	U
Aniline	200	200	U ·
Benzaldehyde	100	100	υ
Phenol	100	100	U
Bis(2-Chloroethyl)ether	100	100	U
2-Chlorophenol	100	100	U
2-Methylphenol	100	100	lυ
2,2'-Oxybis(1-chloropropane)	100	100	υ ⁻
Acetophenone	100	100	U
4-Methylphenol	100	100	U
N-Nitroso-di-n-propylamine	100	100	U
Hexachloroethane	100	100	υ
Nitrobenzene	100	100	υ
Isophorone	100	100	υ
2-Nitrophenol	100	100	υ
2,4-Dimethylphenol	100	100	U
Bis(2-chloroethoxy)methane	100	100	U
2,4-Dichlorophenol	100	100	lu
Naphthalene	100	12	*
4-Chloroaniline	100	100	lu
Hexachlorobutadiene	100	100	U *
Caprolactam	100	100	U .
4-Chloro-3-methylphenol	100	100	U
2-Methylnaphthalene	100	100	U *
Hexachlorocyclopentadiene	100	100	lυ
2,4,6-Trichlorophenol	100	100	U
2,4,5-Trichlorophenol	100	100	lu
1,1'-Biphenyl	100	100	lu
2-Chloronaphthalene	100	100	lu -
2-Nitroaniline	200	200	U
Dimethylphthalate	100	100	U
2,6-Dinitrotoluene	100	100	U
Acenaphthylene	100	100	U *
3-Nitroaniline	200	200	U
Acenaphthene	100	100	U *
2,4-Dinitrophenol	200	200	U
4-Nitrophenol	200	200	U
Dibenzofuran	100	100	U
2,4-Dinitrotoluene	100	100	U

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP1	
STATION LOCATION		MW-16	
:	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Diethylphthalate	100	100	U
Fluorene	100	100	U *
4-Chlorophenyl-phenylether	100	100	Įυ
4-Nitroaniline	200	200	U
4,6-Dinitro-2-methylphenol	200	200	U
N-Nitrosodiphenylamine	100	100	U
1,2,4,5-Tetrachlorobenzene	100	100	υ
4-Bromophenyl-phenylether	100	100	U
Hexachlorobenzene	100	100	U
Atrazine	100	100	υ
Pentachlorophenol	200	200	U * .
Phenanthrene	100	100	U *
Anthracene	100	100	U *
Carbazole	100	100	U
Di-n-butylphthalate	100	100	U
Fluoranthene	100	100	U *
Pyrene	100	100	U *
Butylbenzylphthalate	100	100	U
3,3'-Dichlorobenzidine	100	100	U
Benzo(a)anthracene	100	100	U *
Chrysene	100	100	U * ·
Bis(2-ethylhexyl)phthalate	100	100	U
Di-n-octylphthalate	100	100	U
Benzo(b)fluoranthene	100	100	U *
Benzo(k)fluoranthene	100	100	U *
Benzo(a)pyrene	100	100	U *
Indeno(1,2,3-cd)pyrene	100	100	U *
Dibenzo(a,h)anthracene	100	100	U *
Benzo(g,h,1)perylene	100	100	U *
2,3,4,6-Tetrachlorophenol	100	100	U

Volume (ml):

1000

Dilution Factor:

20

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP1 (SIM)		
STATION LOCATION		MW-16	·	
	ADJ			
Semivolatile	CRQL	RESULT	FLAG	
Naphthalene	2.0	8.1	*	
2-Methylnaphthalene	2.0	2.7		
Acenaphthylene	2.0	2.0	Įυ	
Acenaphthene	2.0	2.0	U	
Fluorene	2.0	2.0	ļυ	
Pentachlorophenol	4.0	4.0	Įυ	
Phenanthrene	2.0	2.0	U	
Anthracene	2.0	2.0	Įυ	
Fluoranthene	2.0	2.0	U	
Pyrene	2.0	2.0	U	
Benzo(a)anthracene	2.0	2.0	. ∤U ;	
Chrysene	2.0	2.0	U	
Benzo(b)fluoranthene	2.0	2.0	Įυ	
Benzo(k)fluoranthene	2.0	2.0	U	
Benzo(a)pyrene	2.0	2.0	U	
Indeno(1,2,3-cd)pyrene	2.0	2.0	\U	
Dibenzo(a,h)anthracene	2.0	2.0	U	
Benzo(g,h,l)perylene	2.0	2.0	U.	

Volume (ml):

1000

Dilution Factor:

20

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.	T	F5MP2	
STATION LOCATION		MW-17	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	10	10	U
Aniline	10	10	.U
Benzaldehyde	5.0	5.0	U
Phenol	5.0	7.2	
Bis(2-Chloroethyl)ether	5.0	5.0	U
2-Chlorophenol	5.0	5.0	j ∪
2-Methylphenol	5.0	5.0	n.
2,2'-Oxybis(1-chloropropane)	5.0	5.0	U .
Acetophenone	5.0	5.0	U
4-Methylphenol	5.0	5.0	U
N-Nitroso-di-n-propylamine	5.0	5.0	U
Hexachloroethane	5.0	5.0	U
Nitrobenzene	5.0	5.0	U
Isophorone	5.0	5.0	U
2-Nitrophenol	5.0	5.0	U I
2,4-Dimethylphenol	5.0	5.0	U
Bis(2-chloroethoxy)methane	5.0	5.0	υ
2,4-Dichlorophenol	5.0	5.0	Įυ
Naphthalene	5.0	52	*
4-Chloroaniline	5.0	5.0	U
Hexachlorobutadiene	5.0	5.0	U *
Caprolactam	5.0	5.0	U
4-Chloro-3-methylphenol	5.0	5.0	U
2-Methylnaphthalene	5.0	18	
Hexachlorocyclopentadiene	5.0	5.0	บ
2,4,6-Trichlorophenol	5.0	5.0	U
2,4,5-Trichlorophenol	5.0	5.0	U
1,1'-Biphenyl	5.0	0.58	LJ
2-Chloronaphthalene	5.0	5.0	U
2-Nitroaniline	10	10	U
Dimethylphthalate	5.0	5.0	U
2,6-Dinitrotoluene	5.0	5.0	Įυ
Acenaphthylene	5.0	5.0	U *
3-Nitroaniline	10	10	Įυ
Acenaphthene	5.0	5.0	U *
2,4-Dinitrophenol	10	10	U
4-Nitrophenol	10	10	 U
Dibenzofuran	5.0	5.0	U U
2,4-Dinitrotoluene	5.0	5.0	JU .

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	l	F5MP2	
STATION LOCATION		MW-17	
	ADJ		1
Semivolatile	CRQL	RESULT	FLAG
Diethylphthalate	5.0	5.0	U
Fluorene	5.0	0.46	*
4-Chlorophenyl-phenylether	5.0	5.0	U
4-Nitroaniline	10	10	U
4,6-Dinitro-2-methylphenol	10	10	U
N-Nitrosodiphenylamine	5.0	5.0	∖ U
1,2,4,5-Tetrachlorobenzene	5.0	5.0	U
4-Bromophenyl-phenylether	5.0	5.0	U
Hexachlorobenzene	5.0	5.0	U
Atrazine	5.0	5.0	U
Pentachlorophenol	10	10	U *
Phenanthrene	5.0	0.29	*
Anthracene	5.0	5.0	U *
Carbazole	5.0	5.0	U
Di-n-butylphthalate	5.0	5.0	U
Fluoranthene	5.0	5.0	\U *
Pyrene	5.0	5.0	U *
Butylbenzylphthalate	5.0	5.0	U
3,3'-Dichlorobenzidine	5.0	5.0	U
Benzo(a)anthracene	5.0	5.0	U *
Chrysene	5.0	5.0	U *
Bis(2-ethylhexyl)phthalate	5.0	2.0	LJ
Di-n-octylphthalate	5.0	5.0	U
Benzo(b)fluoranthene	5.0	5.0	U *
Benzo(k)fluoranthene	5.0	5.0	U *
Benzo(a)pyrene	5.0	5.0]U *
Indeno(1,2,3-cd)pyrene	5.0	5.0	U *
Dibenzo(a,h)anthracene	5.0	5.0	U *
Benzo(g,h,l)perylene	5.0	5.0	U *
2,3,4,6-Tetrachlorophenol	5.0	5.0	U

Volume (ml):

1000

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	T	F5MP2 (SIN	1)
STATION LOCATION		MW-17	,
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	0.10	61	*
2-Methylnaphthalene	0.10	49	*
Acenaphthylene	0.10	0.10	U
Acenaphthene	0.10	0.23	
Fluorene	0.10	0.33	
Pentachlorophenol	0.20	0.20	Įυ
Phenanthrene	0.10	0.13	
Anthracene	0.10	0.10	U
Fluoranthene	0.10	0.10	Įυ
Pyrene	0.10	0.10	U
Benzo(a)anthracene	0.10	0.10	U .
Chrysene	0.10	0.10	U
Benzo(b)fluoranthene	0.10	0.10	U
Benzo(k)fluoranthene	0.10	0.10	Įυ
Benzo(a)pyrene	0.10	0.10	Įυ
Indeno(1,2,3-cd)pyrene	0.10	0.10	U
Dibenzo(a,h)anthracene	0.10	0.10	ļυ
Benzo(g,h,l)perylene	0.10	0.10	ĮU

Volume (ml):

1000

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer: T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP2DL (S	SIM)
STATION LOCATION		MW-17	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	5.0	37	*
2-Methylnaphthalene	5.0	24	*
Acenaphthylene	5.0	5.0	U *
Acenaphthene	5.0	5.0	U *
Fluorene	5.0	5.0	U *
Pentachlorophenol	10	10	U *
Phenanthrene	5.0	5.0	U *
Anthracene	5.0	5.0	Ū*
Fluoranthene	5.0	5.0	U *
Pyrene	5.0	5.0	U *
Benzo(a)anthracene	5.0	5.0	U *
Chrysene	5.0	5.0	U *
Benzo(b)fluoranthene	5.0	5.0	U *
Benzo(k)fluoranthene	5.0	5.0	U *
Benzo(a)pyrene	5.0	5.0	U *
Indeno(1,2,3-cd)pyrene	5.0	5.0	lu *
Dibenzo(a,h)anthracene	5.0	5.0	∪ *
Benzo(g,h,l)perylene	5.0	5.0	lυ *

Volume (ml):

1000

Dilution Factor:

50

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

 ΔA

Matrix: Water

Units: ug

ug/L

EPA SAMPLE No.	F5MP2RE (SIM)		
STATION LOCATION		MW-17	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	0.10	62	*
2-Methylnaphthalene	0.10	47	*
Acenaphthylene	0.10	0.10	U *
Acenaphthene	0.10	0.21	*
Fluorene	0.10	0.32	*
Pentachlorophenol	0.20	0.20	U *
Phenanthrene	0.10	0.13	*
Anthracene	0.10	0.10	U *
Fluoranthene	0.10	0.10	บ *
Pyrene	0.10	0.10	U *
Benzo(a)anthracene	0.10	0.10	U *
Chrysene	0.10	0.10	U *
Benzo(b)fluoranthene	0.10	0.10	U *
Benzo(k)fluoranthene	0.10	0.10	ีบ *
Benzo(a)pyrene	0.10	0.10	U *
Indeno(1,2,3-cd)pyrene	0.10	0.10	U *
Dibenzo(a,h)anthracene	0.10	0.10	υ *
Benzo(g,h,I)perylene	0.10	0.10	U *

Volume (ml):

1000

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	l .	F5MP3	
STATION LOCATION		MW-18	T
	ADJ	, , , , , , , , , , , , , , , , , , , ,	
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	100	100	U
Aniline	100	100	U
Benzaldehyde	50	50	U
Phenol	50	92	
Bis(2-Chloroethyl)ether	50	50	U
2-Chlorophenol	50	50	U
2-Methylphenol	50	360	•
2,2'-Oxybis(1-chloropropane)	50	50	ļυ
Acetophenone	50	9.5	LJ
4-Methylphenol	50	190	
N-Nitroso-di-n-propylamine	50	50	U
Hexachloroethane	50	50	U
Nitrobenzene	50	50	U
Isophorone	50	50	U
2-Nitrophenol	50	50	υ
2,4-Dimethylphenol	50	870	*
Bis(2-chloroethoxy)methane	50	50	U
2,4-Dichlorophenol	50	50	U
Naphthalene	50	190	*
4-Chloroaniline	50	50	U
Hexachlorobutadiene	50	50	U *
Caprolactam	50	50	U
4-Chloro-3-methylphenol	50	50	U
2-Methylnaphthalene	50	51	
Hexachlorocyclopentadiene	50	50	U
2,4,6-Trichlorophenol	50	50	U
2,4,5-Trichlorophenol	50	50	U
1,1'-Biphenyl	50	50	U
2-Chloronaphthalene	50	50	U
2-Nitroaniline	100	100	Ü
Dimethylphthalate	50	50	U
2,6-Dinitrotoluene	50 -	50	U -
Acenaphthylene	50	50	U *
3-Nitroaniline	100	100	U
Acenaphthene	50	50	U *
2,4-Dinitrophenol	100	100	U .
4-Nitrophenol	100	100	U
Dibenzofuran	50	50	U
2,4-Dinitrotoluene	50	50	U

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

		E EL 100	
EPA SAMPLE No.		F5MP3	
STATION LOCATION		MW-18	
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	50	50	U
Fluorene	50	50	<u> U</u> *
4-Chlorophenyl-phenylether	50	50	ļ <u>u</u>
4-Nitroaniline	100	100	ĮŲ.
4,6-Dinitro-2-methylphenol	100	100	ĮŲ.
N-Nitrosodiphenylamine	50	50	U
1,2,4,5-Tetrachlorobenzene	50	50	U
4-Bromophenyl-phenylether	50	50	U
Hexachlorobenzene	50	50	U
Atrazine	50	50	U
Pentachlorophenol	100	100	U *
Phenanthrene	50	50	U *
Anthracene	50	50	U *
Carbazole	50	50	U
Di-n-butylphthalate	50	50	U .
Fluoranthene	50	50	\U *
Pyrene	50	50	U *
Butylbenzylphthalate	50	50	U
3,3'-Dichlorobenzidine	50	50	U
Benzo(a)anthracene	50	50	U *
Chrysene	50	50	U *
Bis(2-ethylhexyl)phthalate	50	50	U -
Di-n-octylphthalate	50	50	U
Benzo(b)fluoranthene	50	50	U *
Benzo(k)fluoranthene	50	50	U *
Benzo(a)pyrene	50	50	U *
Indeno(1,2,3-cd)pyrene	50	50	U *
Dibenzo(a,h)anthracene	50	50	∪ *
Benzo(g,h,l)perylene	50	50	U *
2,3,4,6-Tetrachlorophenol	50	50	U

Volume (ml):

1000

Dilution Factor:

10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

T. Fan Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MP3DL	
STATION LOCATION		MW-18	<u> </u>
	ADJ		
Semivolatile `	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	200	200	U *
Aniline	200	200	U *
Benzaldehyde	100	100	U *
Phenol	100	51	*
Bis(2-Chloroethyl)ether	100	100	U *
2-Chlorophenol	100	100	U * 💛
2-Methylphenol	100	210	*
2,2'-Oxybis(1-chloropropane)	100	100	U *
Acetophenone	100	100	U"*
4-Methylphenol	100	100	*
N-Nitroso-di-n-propylamine	100	100	U *
Hexachloroethane	100	100	U *
Nitrobenzene	100	100	U *
Isophorone	100	100	U *
2-Nitrophenol	100	100	U *
2,4-Dimethylphenol	100	500	
Bis(2-chloroethoxy)methane	100	100 ⁻	U *
2,4-Dichlorophenol	100	100	U *
Naphthalene	100	110	*
4-Chloroaniline	100	100	U *
Hexachlorobutadiene	100	100	U *
Caprolactam	100	100	U *
4-Chloro-3-methylphenol	100	100	U *
2-Methylnaphthalene	100	31	*
Hexachlorocyclopentadiene	100	100	U *
2,4,6-Trichlorophenol	100	100	U *
2,4,5-Trichlorophenol	100	100	U *
1,1'-Biphenyl	100	100	U *
2-Chloronaphthalene	100	100	U *
2-Nitroaniline	200	200	U *
Dimethylphthalate	100	100	U *
2,6-Dinitrotoluene	100	100	U *
Acenaphthylene	100	100	U *
3-Nitroaniline	200	200	U *
Acenaphthene	100	100	U *
2,4-Dinitrophenol	200	200	U *
4-Nitrophenol	200	200	U *
Dibenzofuran	100	100	U *
2,4-Dinitrotoluene	100	100	บ *

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MP3DL	
STATION LOCATION		MW-18	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Diethylphthalate	100	100	U*
Fluorene	100	100	U *
4-Chlorophenyl-phenylether	100	100	U *
4-Nitroaniline	200	200	U *
4,6-Dinitro-2-methylphenol	200	200	[U *
N-Nitrosodiphenylamine	100	100	U *
1,2,4,5-Tetrachlorobenzene	100	100	U *
4-Bromophenyl-phenylether	100	100	U *
Hexachlorobenzene	100	100	U *
Atrazine	100	100	U *
Pentachiorophenol	200	200	U *
Phenanthrene	100	100	U *
Anthracene	100	100	U *
Carbazole	100	100	U *
Di-n-butylphthalate	100	100	U *
Fluoranthene	100	100	U *
Pyrene	100	100	U *
Butylbenzylphthalate	100	100	U *
3,3'-Dichlorobenzidine	100	100	U *
Benzo(a)anthracene	100	100	U * .
Chrysene	100	100	∪ *
Bis(2-ethylhexyl)phthalate	100	100	U *
Di-n-octylphthalate	100	100	υ* ·
Benzo(b)fluoranthene	100	100	U.*
Benzo(k)fluoranthene	100	100	U *
Benzo(a)pyrene	100	100	U *
Indeno(1,2,3-cd)pyrene	100	100	U * .
Dibenzo(a,h)anthracene	100	100	U * .
Benzo(g,h,l)perylene	100	100	U *
2,3,4,6-Tetrachlorophenol	100	100	U *

Volume (ml):

1000

Dilution Factor:

20

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP3 (SIM)		
STATION LOCATION		JMW-18	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	1.0	43	. *
2-Methylnaphthalene	1.0	25	*
Acenaphthylene	1.0	1.0	U
Acenaphthene	1.0	1.0	U
Fluorene	1.0	1.0	U
Pentachlorophenol	2.0	2.0	U
Phenanthrene	1.0	1.0	U
Anthracene	1.0	1.0	U
Fluoranthene	1.0	1.0	U ·
Pyrene	1.0	1.0	U
Benzo(a)anthracene	1.0	1.0	Įυ
Chrysene	1.0	1.0	Įυ
Benzo(b)fluoranthene	1.0	1.0	Įυ
Benzo(k)fluoranthene	1.0	1.0	Įυ
Benzo(a)pyrene	1.0	1.0	Įυ
Indeno(1,2,3-cd)pyrene	1.0	1.0	υ ˙
Dibenzo(a,h)anthracene	1.0	1.0	Įυ
Benzo(g,h,l)perylene	1.0	1.0	Įυ

Volume (ml):

1000

Dilution Factor:

10

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP3DL (SIM)		
STATION LOCATION		MW-18	
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	20	130	*
2-Methylnaphthalene	20	54	*
Acenaphthylene	20	20	U *
Acenaphthene	20	20	U *
Fluorene	20	20	U *.
Pentachlorophenol	40	40	U *
Phenanthrene	20	20	บ *
Anthracene	20	20	U *
Fluoranthene	20	20	U *
Pyrene	20	20	U *
Benzo(a)anthracene	20	20	U *
Chrysene	20	20	U *
Benzo(b)fluoranthene	20	20	U *
Benzo(k)fluoranthene	20	20	U *
Benzo(a)pyrene	20	20	U *
Indeno(1,2,3-cd)pyrene	20	20	U *
Dibenzo(a,h)anthracene	20	20	U *
Benzo(g,h,l)perylene	20	20	U *

Volume (ml):

1000

Dilution Factor:

200

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	Ï	F5MP3RE (SIM)		
STATION LOCATION		MW-18	ĺ	
	ADJ			
Semivolatile	CRQL	RESULT	FLAG	
Naphthalene	1.0	50	*	
2-Methylnaphthalene	1.0	30	*	
Acenaphthylene	1.0	1.0	U *	
Acenaphthene	1.0	1.0	U *	
Fluorene	1.0	1.0	U *	
Pentachlorophenol	2.0	2.0	U *	
Phenanthrene	1.0	1.0	U *	
Anthracene	1.0	1.0	U *	
Fluoranthene	1.0	1.0	U *	
Pyrene	1.0	1.0	U *	
Benzo(a)anthracene	1.0	1.0	U *	
Chrysene	1.0	1.0	U *	
Benzo(b)fluoranthene	1.0	1.0	U *	
Benzo(k)fluoranthene	1.0	1.0	U *	
Benzo(a)pyrene	1.0	1.0	U *	
Indeno(1,2,3-cd)pyrene	1.0	1.0	U *	
Dibenzo(a,h)anthracene	1.0	1.0	U *	
Benzo(g,h,l)perylene	1.0	1.0	U *	

Volume (ml):

1000

Dilution Factor;

10

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

 ΔA

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	·	F5MQ4	
STATION LOCATION		MW-14-D	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	100	100	U
Aniline	100	100	υ .
Benzaldehyde	50	50	U
Phenol	50	1600	*
Bis(2-Chloroethyl)ether	50	50	U
2-Chlorophenol	50	50	U
2-Methylphenol	50	1600	* .
2,2'-Oxybis(1-chloropropane)	50	50	U
Acetophenone	50	50	U
4-Methylphenol	50	1100	*
N-Nitroso-di-n-propylamine	50	50	U
Hexachloroethane	50	50	υ
Nitrobenzene	50	50	U ,
Isophorone	50	50	U
2-Nitrophenol	50	50	U
2,4-Dimethylphenol	50	840	*
Bis(2-chloroethoxy)methane	50	50	U -
2,4-Dichlorophenol	50	50	U
Naphthalene	50	320	
4-Chloroaniline	50	50	U
Hexachlorobutadiene	50	50	U
Caprolactam	50	50	υ
4-Chloro-3-methylphenol	50	50	U
2-Methylnaphthalene	50	75	
Hexachlorocyclopentadiene	50	50	U
2,4,6-Trichlorophenol	50	50	U
2,4,5-Trichlorophenol	50	50	U
1,1'-Biphenyl	50	4.8	LJ
2-Chloronaphthalene	50	50	U
2-Nitroaniline	100	100	U
Dimethylphthalate	50	50	υ .
2,6-Dinitrotoluene	50	50	U į
Acenaphthylene	50	50	U *
3-Nitroaniline	100	100	υ
Acenaphthene	50	50	U *
2,4-Dinitrophenol	100	100	U
4-Nitrophenol	100	100	U
Dibenzofuran	50	50	U
2,4-Dinitrotoluene	50	50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

T. Fan Reviewer

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ4	
STATION LOCATION		MW-14-D	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Diethylphthalate	50	50	U
Fluorene	50	50	U *
4-Chlorophenyl-phenylether	50	50	U
4-Nitroaniline	100	100	U
4,6-Dinitro-2-methylphenol	100	100	U
N-Nitrosodiphenylamine	 50	50	U
1,2,4,5-Tetrachlorobenzene	50	50	U ·
4-Bromophenyl-phenylether	50	50	ĮU
Hexachlorobenzene	50	50	U
Atrazine	50	50	U .
Pentachlorophenol	100	100	U *
Phenanthrene	50	50	U *
Anthracene	50	50	U *
Carbazole	50	50	U
Di-n-butylphthalate	50	50	U
Fluoranthene	50	50	U *
Pyrene	50	50	U *
Butylbenzylphthalate	50	50	U
3,3'-Dichlorobenzidine	50	50	U
Benzo(a)anthracene	50	50	U*
Chrysene	50	50	U *
Bis(2-ethylhexyl)phthalate	50	50	U
Di-n-octylphthalate	50	50	U
Benzo(b)fluoranthene	50	50	U *
Benzo(k)fluoranthene	50	50	U *
Benzo(a)pyrene	50	50]U *
Indeno(1,2,3-cd)pyrene	50	50	U *
Dibenzo(a,h)anthracene	50	50	U *
Benzo(g,h,l)perylene	50	50	U *
2,3,4,6-Tetrachlorophenol	50	50	U

Volume (ml):

1000

Dilution Factor:

10

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MQ4DL	
STATION LOCATION		IMW-14-D	
317111017 1007111011	ADJ		
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	500	500	U *
Aniline	500	500	U *
Benzaldehyde	250	250	Ū *
Phenol	250	1000	
Bis(2-Chloroethyl)ether	250	250	U *
2-Chlorophenol	250	250	U *
2-Methylphenol	250	1000	
2,2'-Oxybis(1-chloropropane)	250	250	บ *
Acetophenone	250	250	Ū *
4-Methylphenol	250	700	
N-Nitroso-di-n-propylamine	250	250	U *
Hexachloroethane	250	250	υ *
Nitrobenzene	250	250	Ū *
Isophorone	250	250	υ *
2-Nitrophenol	250	250	U *
2,4-Dimethylphenol	250	530	
Bis(2-chloroethoxy)methane	250	250	υ *
2,4-Dichlorophenol	250	250	U *
Naphthalene	250	210	*
4-Chloroaniline	250	250	υ *
Hexachlorobutadiene	250	250	υ *
Caprolactam	250	250	U *
4-Chioro-3-methylphenol	250	250	U *
2-Methylnaphthalene	250	52	*
Hexachlorocyclopentadiene	250	250	U *
2,4,6-Trichlorophenol	250	250	U *
2,4,5-Trichlorophenol	250	250	U *
1,1'-Biphenyl	250	250	U *
2-Chloronaphthalene	250	250	บ *
2-Nitroaniline	500	500	υ *
Dimethylphthalate	250	250	U *
2,6-Dinitrotoluene	250	250	U *
Acenaphthylene	250	250	U *
3-Nitroaniline	500	500	υ *
Acenaphthene	250	250	U *
2,4-Dinitrophenol	500	500	U *
4-Nitrophenol	500	500	Ū *
Dibenzofuran	250	250	Ū*
2,4-Dinitrotoluene	250	250	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ4DL	
STATION LOCATION	1	MW-14-D	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Diethylphthalate	250	250	U *
Fluorene	250	250	U *
4-Chlorophenyl-phenylether	250	250	∪ *
4-Nitroaniline	500	500	∪ *
4,6-Dinitro-2-methylphenol	500	500	U *
N-Nitrosodiphenylamine	250	250	lu *
1,2,4,5-Tetrachlorobenzene	250	250	U *
4-Bromophenyl-phenylether	250	250	U *
Hexachlorobenzene	250	250	U *
Atrazine	250	250	U *
Pentachiorophenol	500	500	U *
Phenanthrene	250	250	U *
Anthracene	250	250	U *
Carbazole	250	250	U *
Di-n-butylphthalate	250	250	U *
Fluoranthene	250	250	\υ*
Pyrene	250	250	U *
Butylbenzylphthalate	250	250	U *
3,3'-Dichlorobenzidine	250	250	U.*
Benzo(a)anthracene	250	250	U *
Chrysene	250	250	U *
Bis(2-ethylhexyl)phthalate	250	250	U *
Di-n-octylphthalate	250	250	U *
Benzo(b)fluoranthene	250	250	U *
Benzo(k)fluoranthene	250	250	U *
Benzo(a)pyrene	250	250	U *
Indeno(1,2,3-cd)pyrene	250	250	U *
Dibenzo(a,h)anthracene	250	250	U *
Benzo(g,h,l)perylene	250	250	U *
2,3,4,6-Tetrachlorophenol	250	250	U *

Volume (ml):

1000

Dilution Factor:

50

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ4 (SIM)	
STATION LOCATION		MW-14-D	
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	1.0	150	*
2-Methylnaphthalene	1.0	20	*
Acenaphthylene	1.0	1.0	U
Acenaphthene	1.0	1.0	U
Fluorene	1.0	1.0	U
Pentachlorophenol	2.0	2.0	U
Phenanthrene	1.0	1.0	U
Anthracene	1.0	1.0	U
Fluoranthene	1.0	1.0	U
Pyrene	1.0	1.0	U
Benzo(a)anthracene	1.0	1.0	U
Chrysene	1.0	1.0	U
Benzo(b)fluoranthene	1.0	1.0	U
Benzo(k)fluoranthene	1.0	1.0	U
Benzo(a)pyrene	1.0	1.0	U
Indeno(1,2,3-cd)pyrene	1.0	1.0	U
Dibenzo(a,h)anthracene	1.0	1.0	U
Benzo(g,h,l)perylene	1.0	1.0	U

Volume (ml):

1000

Dilution Factor:

10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

ÀΔ

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	T .	F5MQ4DL (S	SIM)
STATION LOCATION		MW-14-D	T
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	40	250	*
2-Methylnaphthalene	40	68	*
Acenaphthylene	40	40	U *
Acenaphthene	. 40	40	U.*
Fluorene	40	40	U * ·
Pentachlorophenol	80	80	U *
Phenanthrene	40	. 40	U *
Anthracene	40	40	U *
Fluoranthene	40	40	U *
Pyrene	40	40	U *
Benzo(a)anthracene	40	40	U *
Chrysene	40	40	U *
Benzo(b)fluoranthene	40	40	U *
Benzo(k)fluoranthene	40	40	U *
Benzo(a)pyrene	40	40	U *
Indeno(1,2,3-cd)pyrene	40	40	U *
Dibenzo(a,h)anthracene	40	40	U *
Benzo(g,h,i)peryleпе	40	40	U *

Volume (ml):

1000

Dilution Factor:

400

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 42498 SDG No. F5MP0 SDG Nos. To Follow Mod. Ref No. 1359.6 & 1859.1 Date Rec. .6/1/12 EPA Lab ID: **ORIGINALS** A4 YES NO N/A CUSTODY SEALS Lab Location: The Woodlands, TX Region: 6 Audit No.: 42498/F5MP0 1. Present on package? X Re_Submitted CSF? X Х Yes No 2. Intact upon receipt? Box No(s): FORM DC-2 COMMENTS: 3. Numbering scheme accurate? Х X 4. Are enclosed documents listed? Description 9, 10 One COC Record was not signed/dated by laboratory 5. Are listed documents enclosed? Χ personnel. The laboratory was contacted for resolution. FORM DC-1 Others The airbill number reported on the Form DC-1 on p. 1733 was 6. Present? X illegible, and the auditor made the necessary correction. 7. Complete? X 8. Accurate? Х TRAFFIC REPORT /CHAIN-OF-CUSTODY RECORD(s) 9. Signed? 10. Dated? AIRBILLS/AIRBILL STICKER 11 Present? Χ 12. Signed? Χ X 13. Dated? SAMPLE TAGS 14. Does DC-1 list tags as being included? Χ 15, Present? Х OTHER DOCUMENTS 16. Complete? X Х 17. Legible? 18. Original? Х 18a. If "NO", does the copy indicate Χ where original documents are located? Over for additional comments. Audited by: Tseng-Ying Fan / ESAT Data Reviewer Date 7/12/12 Date Audited by: Printed Name/Title Signature

Page 1 of 2

In Reference To Case No(s):
42498 SDG: F5MP0 (0-0882)

Contract Laboratory Program REGIONAL/LABORATORY COMMUNICATION SYSTEM Resubmission Request

Laboratory Name:

Lab Contact:

Region:

Regional Contact:

Raymond Flores - EPA

ESAT Reviewer:

Tseng-Ying Fan - ESAT

In reference to data for the following fraction(s):

CSF Deliverables

TVOA

BNA

BNA-SIM

Summary of Questions/Issues:

A. CSF Deliverables

The Sample Custodian did not sign/date the COC Record associated with BNA sample F5MQ4 (p. 24). Please submit a signed and dated copy.

B. TVOA

1. TCL compound 1,2,4-trichlorobenzene was omitted from the IC quantitation reports on pp. 699 and 706. Please resubmit these pages to report the missing data.

2. Sample F5MP6:

- (a) The reported target compounds had RTs almost identical to those in the associated CCV except for tert-butylbenzene. The spectra for tert-butylbenzene also did not appear to meet the relative intensity criteria for identification. Please provide a better spectrum or reconsider the identification of this compound.
- (b) The elution order for DMCs benzene-d6 and 1,2-dichloroethane-d4 was reversed compared to the associated opening CCV. Please double check the identification for these DMCs and make the necessary correction and resubmission.
- 3. Sample F5MP8: The reported target compounds had almost identical RTs to those in the associated CCV except for 1,2,4trimethylbenzene. Please double check the ID for this analyte. Correct and resubmit data and reporting form as needed.

Resubmission Request

Continuation Page: 2

Laboratory/Contact: A4/ Laxmi Teerupalli

In Reference to Case No.: 42498 SDG: F5MP0

C. BNA

Modified Analysis Request 1859.1 requires that the laboratory select the appropriate ISs and DMCs to be associated with the two MA target compounds and document the selections in the SDG Narrative. Please comply with this requirement and resubmit the SDG Narrative.

D. BNA-SIM

Form 2 (p. 1485): The DMC recoveries for SDMC18 were erroneously reported under the column for SDMC17, and vice versa. Please correct and resubmit this Form 2.

NOTE: Any laboratory resubmission should be submitted either as an addendum to the original CSF with a revised Form DC-2 or submitted as a new CSF with a new Form DC-2 except for replacement pages (SOM01.2, p. B-33, sec. 2.6.3). Custody seals are required for all such shipments.

Please respond to the above items within 7 days by e-mail to Flores. Raymond@epa.gov and by regular mail to:

Mr. Raymond Flores
U.S. EPA Region 6 Laboratory
10625 Fallstone Road
Houston, TX 77099

If you have any questions, please contact Mr. Flores at 281-983-2139.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

Page 109 of

USEPA CLP Organics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7983 6077 0990

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498 No: 6-051012-151441-0009

Lab: A4 Scientific Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coli. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP0	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474000 (HCL pH<2), 6- 474001 (HCL pH<2), 6- 474002 (HCL pH<2), 6- 474003 (HCL pH<2), 6- 474004 (HCL pH<2), 6- 474005 (HCL pH<2) (6)	MW-14	05/10/2012 09:05	MF5MP0	Field Sample
F5MP1	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474016 (HCL pH<2), 6- 474017 (HCL pH<2), 6- 474018 (HCL pH<2), 6- 474019 (HCL pH<2), 6- 474020 (HCL pH<2), 6- 474021 (HCL pH<2) (6)	MW-16	05/10/2012 07:35	MF5MP1	Field Sample
F5MP2	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474028 (HCL pH<2), 6- 474029 (HCL pH<2), 6- 474030 (HCL pH<2), 6- 474031 (HCL pH<2), 6- 474032 (HCL pH<2), 6- 474033 (HCL pH<2) (6)	MW-17	05/10/2012 12:19	MF5MP2	Field Sample
F5MP3	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474039 (HCL pH<2), 6- 474040 (HCL pH<2), 6- 474041 (HCL pH<2), 6- 474042 (HCL pH<2), 6- 474043 (HCL pH<2), 6- 474044 (HCL pH<2) (6)	MW-18	05/09/2012 17:37	MF5MP3	Field Sample

	Shipment for Case Complete? Y
Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6	Samples Transferred From Chain of Custody #
Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2	

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DateShipped: 5/10/2012 CarrierName: FedEx AirbillNo: 7983 6077 0990 **CHAIN OF CUSTODY RECORD**

R & H Oil/Tropicana Energy Superfund Site Case #: 42498 No: 6-051012-151441-0009

Lab: A4 Scientific Lab Contact: Laxmi Teerupalli Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaro	und	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP6	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TV SIM(21), TVOA/T-SII TVOA/T-SIM(21), TV SIM(21), TVOA/T-SI	M(21), 'OA/T-	6-474062 (HCL pH<2), 6- 474063 (HCL pH<2), 6- 474064 (HCL pH<2), 6- 474065 (HCL pH<2), 6- 474066 (HCL pH<2), 6- 474067 (HCL pH<2) (6)	MW-19	05/10/2012 11:20		Field Sample
F5MP9	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TV SIM(21), TVOA/T-SII TVOA/T-SIM(21), TV SIM(21), TVOA/T-SI	M(21), /OA/T-	6-474080 (HCL pH<2), 6- 474081 (HCL pH<2), 6- 474082 (HCL pH<2), 6- 474083 (HCL pH<2), 6- 474084 (HCL pH<2), 6- 474085 (HCL pH<2) (6)	MW-22	05/09/2012 16:28		Field Sample
F5MQ6	Water/ Jose Flores	Grab	TVOAT-SIM(21), TV SIM(21), TVOAT-SI TVOAT-SIM(21), TV SIM(21), TVOAT-SI	M(21), /OA/T-	6-474134 (HCL pH<2), 6- 474135 (HCL pH<2), 6- 474136 (HCL pH<2), 6- 474137 (HCL pH<2), 6- 474138 (HCL pH<2), 6- 474139 (HCL pH<2) (6)	TB-2	05/09/2012 21:30		Trip Blank
F5MQ8	Water/ Jose Flores	Grab	TVOAT-SIM(21), TV SIM(21), TVOAT-SI TVOAT-SIM(21), TV SIM(21), TVOAT-SI	M(21), /OA/T-	6-474146 (HCL pH<2), 6- 474147 (HCL pH<2), 6- 474148 (HCL pH<2), 6- 474149 (HCL pH<2), 6- 474150 (HCL pH<2), 6- 474151 (HCL pH<2) (6)	FB-2	05/10/2012 07:36		Field Blank

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

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CHAIN OF CUSTODY RECORD

No: 6-050912-222243-0001

DateShipped: 5/10/2012 CarrierName: FedEx R & H Oil/Tropicana Energy Superfund Site

Lab: A4 Scientific Lab Contact: Laxmi Teerupalli

AirbillNo: 7983 6076 6288

Case #: 42498

Lab Phone: 281-292-5277

	Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
	F5MP4	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474050 (HCL pH<2), 6- 474051 (HCL pH<2), 6- 474052 (HCL pH<2), 6- 474053 (HCL pH<2), 6- 474054 (HCL pH<2), 6- 474055 (HCL pH<2) (6)	MW-4	05/09/2012 10:47		Field Sample
,	F5MP5	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474056 (HCL pH<2), 6- 474057 (HCL pH<2), 6- 474058 (HCL pH<2), 6- 474059 (HCL pH<2), 6- 474060 (HCL pH<2), 6- 474061 (HCL pH<2) (6)	MW-9	05/09/2012 14:12		Field Sample
	F5MP7	Water/ Jose Flores	Grab	TVOAT-SIM(21), TVOAT- SIM(21), TVOAT-SIM(21), TVOAT-SIM(21), TVOAT- SIM(21), TVOAT-SIM(21)	6-474068 (HCL pH<2), 6- 474069 (HCL pH<2), 6- 474070 (HCL pH<2), 6- 474071 (HCL pH<2), 6- 474072 (HCL pH<2), 6- 474073 (HCL pH<2) (6)	MW-20	05/09/2012 12:02		Field Sample
	F5MP8	Water/ Jose Flores	Grab .	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474074 (HCL pH<2), 6- 474075 (HCL pH<2), 6- 474076 (HCL pH<2), 6- 474077 (HCL pH<2), 6- 474078 (HCL pH<2), 6- 474079 (HCL pH<2) (6)	MW-21	05/09/2012 15:20		Field Sample

			 Shipment for Case Complete? Y
Special Instructions: TVOA+TVOASIM	SOM01.2+MA#1359.6		Samples Transferred From Chain of Custody #
Analysis Key: TVOA/T-SIM=TVOA-MA	#1359.6+TVOASIM-SOM0	1.2	

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DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7983 6076 6288

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498

No: 6-050912-222243-0001

Lab: A4 Scientific

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MQ0	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474086 (HCL pH<2), 6- 474087 (HCL pH<2), 6- 474088 (HCL pH<2), 6- 474089 (HCL pH<2), 6- 474090 (HCL pH<2), 6-	MW-21-D	05/09/2012 15:20		Field Duplicate
			_	474091 (HCL pH<2) (6)				
F5MQ1	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474092 (HCL pH<2), 6- 474093 (HCL pH<2), 6- 474094 (HCL pH<2), 6- 474095 (HCL pH<2), 6- 474096 (HCL pH<2), 6- 474097 (HCL pH<2) (6)	MW-4-D	05/09/2012 10:47		Field Duplicate
F5MQ5	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474128 (HCL pH<2), 6- 474129 (HCL pH<2), 6- 474130 (HCL pH<2), 6- 474131 (HCL pH<2), 6- 474132 (HCL pH<2), 6- 474133 (HCL pH<2) (6)	TB-1	05/09/2012 07:30		Trip Blank
F5MQ7	Water/ Jose Flores	Grab	TVOAT-SIM(21), TVOAT- SIM(21), TVOAT-SIM(21), TVOAT-SIM(21), TVOAT- SIM(21), TVOAT-SIM(21)	6-474140 (HCL pH<2), 6- 474141 (HCL pH<2), 6- 474142 (HCL pH<2), 6- 474143 (HCL pH<2), 6- 474144 (HCL pH<2), 6- 474145 (HCL pH<2) (6)	FB-1	05/09/2012 16:22		Field Blank

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Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6	.*		·	Samples Transferred From Chain of Custody #
Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2	1 , 1			

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Page 113 of 12

USEPA CLP Organics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7935 3008 5105

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-172143-0012

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP0	Water/ Jose Flores	Grab	SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21)	6-474006 (Ice 4 C), 6- 474007 (Ice 4 C), 6- 474008 (Ice 4 C), 6- 474009 (Ice 4 C) (4)	MW-14	05/10/2012 09:05	MF5MP0	Field Sample
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Special Instructions: SV/SVSIM SOM01.2+MA	# 1859.1	. :		,	Samples Transferred	From Chain of Cus	stody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859	9.1-SOM01.2		 				

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CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498

No: 6-051012-172816-0013

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli Lab Phone: 281-292-5277

Organic Matrix/Sampler Analysis/Turnaround Tag/Preservative/Bottles Inorganic Sample Type Coll, Station Collected Sample # Sample # Method Location 6-474022 (Ice 4 C), 6-474023 (Ice 4 C), 6-474024 (Ice 4 C), 6-474025 (Ice 4 C) (4) SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21) MW-16 MF5MP1 F5MP1 Field Sample Water/ Jose Grab 05/10/2012 07:35 Flores

	:	Shipment for Case Complete? Y
Special instructions: SV/SVSIM SOM01.2+MA# 1859.1		Samples Transferred From Chain of Custody#
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Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2		

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Page 115 of 121

USEPA CLP Organics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7935 3008 3422

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498 No: 6-051012-171208-0011

Lab: A4 Scientific

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP2	Water/ Jose Flores	Grab	SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21)	6-474034 (Ice 4 C), 6- 474035 (Ice 4 C), 6- 474036 (Ice 4 C), 6- 474037 (Ice 4 C) (4)	MW-17	05/10/2012 12:19	MF5MP2	Field Sample
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Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1		Samples Transferred From Chain of Custody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2		

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Page 116 of 12

USEPA CLP Organics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7983 6076 7836

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498 No: 6-050912-223702-0002

Lab: A4 Scientific

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP3	Water/ Jose Flores	Grab	SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21)	6-474045 (Ice 4 C), 6- 474046 (Ice 4 C), 6- 474047 (Ice 4 C), 6- 474048 (Ice 4 C) (4)	MW-18	05/09/2012 17:37	MF5MP3	Field Sample
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Special Instructions: SV/SVSIM SOM01.2+MA#	‡ 1859.1		Samples Transferred From Chain of Custody #					
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Page 117 of 1.

USEPA CLP Organics COC (REGION COPY)

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7935 3027 3107

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498 No: 6-051012-163408-0010

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Lab: A4 Scientific

Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
Water/ Jose Grab SV/SVSIM(21), SV/\$VSIM(21), 6- Flores SV/SVSIM(21), SV/\$VSIM(21) 4		6-474010 (Ice 4 C), 6- 474011 (Ice 4 C), 6-	MW-14-D	05/10/2012 09:05		Field Duplicate	
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	Water/ Jose	Water/ Jose Grab	Water/ Jose Grab SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21)	Water/ Jose Flores Grab SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21) 6-474010 (Ice 4 C), 6- 474011 (Ice 4 C), 6- 474012 (Ice 4 C), 6- 474013 (Ice 4 C) (4)	Water/ Jose Flores Grab SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21) 6-474010 (Ice 4 C), 6- 474011 (Ice 4 C), 6- 474012 (Ice 4 C), 6- 474013 (Ice 4 C) (4) MW-14-D	Water/ Jose Flores Grab SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21) 6-474010 (Ice 4 C), 6- 474011 (Ice 4 C), 6- 474012 (Ice 4 C), 6- 474013 (Ice 4 C) (4) MW-14-D 05/10/2012 09:05	Method Location Sample #

Analysis Key: SV/S	SVSIM=SV/SVSIM-M/	A#1859.1-SC	M01,2								
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R&H OIL/TROPICANA ENERGY SITE GROUND WATER ANALYTE LIST – VOCs

	wolatile orga	NIC.COMPO	DUNDS (VOC	(S)
		Extent E	valuation Co	mparison
	Constituent		Value a	
)	1,2-Dibromo-3-chloropropane	mg/L 2.00E-04	mg/L 0.00020	μg/L 0.20
· · · · · ·	1,2-Dibromoethane	5.00E-05	0.00020	0.05
	1,2-Dichlorobenzene	6.00E-01	0.60000	600.00
. /	1,2-Dichloroethane	5.00E-03	0.00500	5.00
	1,2-Dichloropropane	5.00E-03	0.00500	5.00
MA	1,3,5-Trimethylbenzene	2.50E-02	0.00500	25.00
, , , , , , , , , , , , , , , , , , ,	1,3-Dichlorobenzene	7.30E-01	0.73000	730.00
MA WM		9.10E-03	0.00910	9.10
MIL A.	1,4-Dichlorobenzene	7.50E-02	0.07500	75.00
MA	2,2-Dichloropropane	1.30E-02	0.01300	13.00
NUT.	2-Butanone	1.50E+01	15.00000	15000.00
MA	2-Chlorotoluene	4.90E-01	0.49000	490.00
	2-Hexanone	1.20E-01	0.12000	120.00
MA	4-Chlorotoluene	1.70E+00	1.70000	1700.00
· ✓	4-Methyl-2-pentanone	2.00E+00	2.00000	2000.00
	Acetone	2.20E+01	22.00000	22000.00
✓	Benzene	5.00E-03	0.00500	5.00
MA	Bromobenzene	2.00E-01	0.20000	200.00
	Bromodichloromethane	2.10E-03	0.00210	2.10
	Bromoform	1.20E-01	0.12000	120.00
· V	Bromomethane	2.00E-02	0.02000	20.00
/	Carbon disulfide	5.60E-01	0.56000	560.00
	Carbon tetrachloride	5.00E-03	0.00500	5.00
	Chlorobenzene	1.00E-01	0.10000	100.00
1	Chloroethane	9.80E+00	9.80000	9800.00

,	· · · · · · VOLATILE ORGA	NIC COMP	OUNDS (VOC	(S)
		- Extent I	valuation Co	mparison
	Constituent	Carried State of Carrie	Value	
•		mg/L	mg/L	μg/L
ν	Chloroform	8.00E-02	0.08000	80.00
√	Chloromethane	6.70E-03	0.00670	6.70
V	cis-1,2-Dichloroethene	7.00E-02	0.07000	70.00
V	cis-1,3-Dichloropropene	1.70E-03	0.00170	1.70
V	Dibromochloromethane (chlorodibromomethane)	3.20E-03	0.00320	3.20
MA	Dibromomethane	1.20E-01	0.12000	120.00
V	Dichlorodifluoromethane	1.40E-02	0.01400	14.00
. 0	Ethylbenzene	7.00E-01	0.70000	700.00
SVOC	Hexachlorobutadiene	3.30E-04	0.00033	0.33
/	Isopropylbenzene (Cumene)	8.40E-03	0.00840	8.40
NO.	Methyl iodide (iodomethane)	-3.40E-02	0.03400	34.00
V	Methylene chloride	5.00E-03	0.00500	5.00
Sunc	Naphthalene	1.50E-01	0.15000	150.00
MA	n-Butylbenzene	2.60E-01	0.26000	260.00
W	n-Propylbenzene	3.20E-01	0.32000	320.00
MA	p-Isopropyltoluene	2.40E+00	2.40000	2400.00
AM	sec-Butylbenzene	2.50E-01	0.25000	250.00
V	Styrene	1.00E-01	0.10000	100.00
	tert-Butyl methyl ether			
	(MTBE)	2.40E-01	0.24000	240.00
MA	tert-Butylbenzene	2.90E-01	0.29000	290.00
	Tetrachloroethene	5.00E-03	0.00500	5.00
	Toluene	1.00E+00	1.00000	1000.00
/	trans-1,2-Dichloroethene	1.00E-01	0.10000	100.00
. 🗸	trans-1,3-Dichloropropene	9.10E-03	0.00910	9.10
/	Trichloroethene	5.00E-03	0.00500	5.00
	Trichlorofluoromethane	1.80E-01	0.18000	180.00
	Vinyl chloride	2.00E-03	0.00200	2.00
	Xylenes (total)	1.00E+01	10.00000	10000.00

SEMI-VOLATILE OR	GANIC COI	MPOUNDS (S	VOCs)
	Extent	Evaluation C	omparison =
Constituent		Value	
	mg/L	mg/L	μg/L .
Benzo(a)anthracene	1.30E-03	0.00130	1.30
Benzo(a)pyrene	2.00E-04	0.00020	0.20
Benzo(b)fluoranthene	1.30E-03	0.00130	1.30
Benzo(g,h,i)perylene	7.30E-01	0.73000	730.00
Benzo(k)fluoranthene	1.30E-02	0.01300	13.00
Benzyl alcohol	2.40E+00	2.40000	2400.00
Bis(2-Chloroethoxy)methane	8.30E-04	0.00083	0.83
Bis(2-Chloroethyl)ether	8.30E-04	0.00083	0.83
Bis(2-Chloroisopropyl)ether7	1.30E-02	0.01300	13.00
Bis(2-Ethylhexyl)phthalate	6.00E-03	0.00600	6.00
Butyl benzyl phthalate	4.80E-01	0.48000	480.00
Chrysene	1.30E-01	0.13000	130.00
Dibenz(a,h)anthracene	2.00E-04	0.00020	0.20
Dibenzofuran	9.80E-02	0.09800	98.00
Diethyl phthalate	2.00E+01	20.00000	20000.00
Dimethyl phthalate	2.00E+01	20.00000	20000.00
Di-n-butyl phthalate	2.40E+00	2.40000	2400.00
Di-n-octyl phthalate	4.90E-01	0.49000	490.00
Fluoranthene	9.80E-01	0.98000	980.00
Fluorene	9.80E-01	0.98000	980.00
Hexachlorobenzene	1.00E-03	0.00100	1.00
Hexachlorocyclopentadiene	5.00E-02	0.05000	50.00
Hexachloroethane	3.80E-03	0.00380	3.80
Indeno(1,2,3-cd)pyrene	1.30E-03	0.00130	1.30
Isophorone	9.60E-01	0.96000	960.00
Nitrobenzene	4.90E-02	0.04900	49.00
n-Nitrosodi-n-propylamine	1.30E-04	0.00013	0.13
Pentachlorophenol	1.00E-03	0.00100	1.00
Phenanthrene	7.30E-01	0.73000	730.00
Phenol	7.30E+00	7.30000	7300.00
	7.30E-01	0.73000	730.00

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R&H OIL/TROPICANA ENERGY SITE GROUND WATER ANALYTE LIST – SVOCs

SEMI-VOLATILE OF	RGANIE CON	IPOUNDS (S	VO(Cs)
	= 2Extent !	Evaluation Co	mpanisona
Constituent			
	mg/L	mg/L	μg/Ib.
2,4,5-Trichlorophenol	2.40E+00	2.40000	2400.0
2,4,6-Trichlorophenol	2.40E-02	0.02400	24.0
2,4-Dichlorophenol	7.30E-02	0.07300	73.0
2,4-Dimethylphenol	4.90E-01	0.49000	490.0
2,4-Dinitrophenol	4.90E-02	0.04900	49.0
2,4-Dinitrotoluene	1.30E-03	0.00130	1.3
2,6-Dinitrotoluene	1.30E-03	0.00130	1,3
2-Chloronaphthalene	2.00E+00	2.00000	2000.0
2-Chlorophenol	1.20E-01	0.12000	120.0
2-Methylnaphthalene	9.80E-02	0.09800	98.0
2-Nitroaniline	7.30E-03	0.00730	7.3
2-Nitrophenol	4.90E-02	0.04900	49.0
3,3'-Dichlorobenzidine	2.00E-03	0.00200	2.0
3-Nitroaniline	7.30E-03	0.00730	7.3
4,6-Dinitro-2-methylphenol	2.40E-03	0.00240	2.4
4-Bromophenyl phenyl ether	6.10E-05	0.00006	0.0
4-Chloro-3-methylphenol	1.20E-01	0.12000	120.0
4-Chloroaniline	4.60E-03	0.00460	4.6
4-Chlorophenyl phenyl ether	6.10E-05	0.00006	0.0
Cresol, p- (4-methylphenol)	1.20E-01	0.12000	120.0
4-Nitroaniline	4.60E-02	0.04600	46.0
4-Nitrophenol	4.90E-02	0.04900	49.0
Acenaphthene	1.50E+00	1.50000	1500.0
Acenaphthylene	1.50E+00	1.50000	1500.0
Aniline	1.60E-01	0.16000	160.0
Anthracene	7.30E+00	7.30000	7300.0

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EA Project No.: 14342.74 September 2012

ATTACHMENT 9 COMPARISON OF LAB DATA ANALYSIS

TABLE 1

RESULTS AND RELATIVE PERCENT DIFFERENCES (RPD) OF EPA AND PRP LAB SAMPLES FIELD INVESTIGATION SUMMARY REPORT, MAY 2012 R&H OIL/TROPICANA ENERGY SUPERFUND SITE

				1.		DDD I I D					
WELL	ANALYTE_GROUP	ANALYTE		A Lab Res Qualifier		Result	PRP Lab R Qualifier	MDL	RL	Units	RPD
	INORGANICS	Aluminum		U	0.2	0.07		0.022		mg/L	NA
	INORGANICS	Arsenic	0.374	U	0.001	0.07	,	0.022		mg/L	13
	INORGANICS	Barium	0.443		0.01	0.44		0.0022		mg/L	1
	INORGANICS	Chromium	0.00056	LJ	0.002	0.0016	U	0.0016		mg/L	NA
	INORGANICS	Cobalt	0.0077		0.001	0.0078		0.00063		mg/L	1
MW-14	INORGANICS	Copper	0.00064	LJ	0.002	0.0017	J B	0.0015		mg/L	91
MW-14	INORGANICS	Lead	0.0088		0.001	0.0077	J	0.0029	0.01	mg/L	13
MW-14	INORGANICS	Manganese	1.13		0.002	1	(0.00084	0.01	mg/L	12
MW-14	INORGANICS	Mercury	0.000044	LJ	0.0002	2.6E-05	U 0.	000026	0.0002	mg/L	NA
	INORGANICS	Nickel	0.0072		0.001	0.0061	J	0.0018	0.01	mg/L	17
	INORGANICS	Selenium	0.0174		0.005	0.0042		0.0042		mg/L	NA
	INORGANICS	Thallium	0.001		0.001	0.0078		0.0078		mg/L	NA
	INORGANICS	Vanadium	0.005	U	0.005	0.0017		0.0017		mg/L	NA
	INORGANICS	Zinc	0.0024		0.002	0.0052		0.0022		mg/L	74
		2-Methylnaphthalene	83	TT	50	58		3.5		(µg/L)	36 NA
	POLYCYCLIC AROMATIC HYDROCARBONS POLYCYCLIC AROMATIC HYDROCARBONS			U	1		U U	4		$\frac{(\mu g/L)}{(\mu g/L)}$	NA NA
		Anthracene		U	1		U	2.5		(μg/L) (μg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS			U	1		U	4		(μg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS			U	1		U	4		(μg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS			U	1		U	3.5		(μg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS			U	1		U	3.3		(μg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS			U	1		U	4.5		$(\mu g/L)$	NA
	POLYCYCLIC AROMATIC HYDROCARBONS			U	1		U	4.3		(μg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS	_		U	1		U	4		$(\mu g/L)$	NA
		Fluoranthene	1	U	1		U	3.5		(µg/L)	NA
		Fluorene	0.49	LJ	1		U	3.5		(µg/L)	NA
		Indeno(1,2,3-cd)pyrene	1	U	1	4	U	3.5		(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene	1	U	1	3	U	3	74	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene	1	U	1	5	U	5.4	99	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol	50	U	50	12	U	12	99	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol	50	U	50	9	U	8.9	99	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol	50	U	50	7	U	7.4	120	(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	620		250	640		15	120	$(\mu g/L)$	3
	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	100		100	19		19		$(\mu g/L)$	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene	50		50		U	6.4		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	50		50		U	4		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	50		50		U	4		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol	50		50		U	6.4		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline	100		100		U	9.4		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol	50		50	11		11		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine	50		50		U	8.9		(μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline	100		100 100	41	U	7.9		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol 4-Bromophenyl-phenylether	50		50		U	41 5		(μg/L) (μg/L)	NA NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol	50		50		U	8.4		(μg/L) (μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline	50		50	10		10		(μg/L) (μg/L)	NA
		4-Chlorophenyl-phenylether	50		50		U	5		(μg/L) (μg/L)	NA
		4-Nitroaniline	100		100	12		12		(μg/L) (μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	100		100	28		28		(μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	100		100		U	4		(μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	50		50		U	6.4		(μg/L)	NA
		Bis(2-Chloroethyl)ether	50		50		U	7.4		$(\mu g/L)$	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate	50		50	18		18		(μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	50		50		U	5.9		$(\mu g/L)$	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	50		50		U	4		(μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	50		50	74		74		(μg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate	50	U	50	4	U	3.5	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate	50	U	50	5	U	5.4	120	(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate	50		50		U	7.9	250	(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene	50		50	5	U	5.4	74	(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	50		50		U	6.4		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	50		50		U	5		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	50		50		U	5.4		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	50		50		U	5.4		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	50		50		U	5		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol		U	2	30		30		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	1200		250	24		2		(µg/L)	192
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	U	13	36	U	36	200	$(\mu g/L)$	NA

TABLE 1

.1			EPA Lab Results		Results PRP La			Lab Results			
WELL	ANALYTE_GROUP	ANALYTE		Qualifier		Result	Qualifier		RL	Units	RPD
	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13	_	13	30		30		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13		13	44		44		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13		13	56		56		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13		13	22		22		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene 1,1-Dichloropropene	13	UJv	13 13	38 42		38 42		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13		13	58		58		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13		13	62		62		$(\mu g/L)$	NA
	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	1000	J	13	1100		28		(μg/L)	10
	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropai			13	160		160		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3		1.3	36		36		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene 1,2-Dichloroethane	13 13		13 13	20 28		20 28		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane		U	13	32		32		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	400		13	440		20		$(\mu g/L)$	10
MW-14	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13	U	13	26	U	26		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13		13	44		44		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13		13	22		22		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13		13	26		26		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	2-Butanone 2-Chlorotoluene	130		130	150 26		150 26		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	2-Hexanone	190	U	130	70		70		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13	U	13	28		28		$(\mu g/L)$	NA
	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130		130	90		90		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Acetone	130	U	130	200	U	200		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Benzene	26000		1300	31000		80		(µg/L)	18
	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13		13	38		38		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane Bromoform	13 13		13 13	32 38		32 38		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS	Bromomethane		UJv	13	50		50		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13		13	48		48		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13	U	13	30	U	30	200	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13		13	24		24		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13		13	16		16		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Chloroform	13 13		13	26	U *	26		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Chloromethane cis-1,2-Dichloroethene		UJv	13 13	12		36 12		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13		13	36		36		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13		13	30		30		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13		13	100		100		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13		13		U *	24		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	1100		1300	1400	T T	22		(µg/L)	24
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene Isopropylbenzene	13 75	U	13 13	34 81	U I	34 36		(μg/L) (μg/L)	NA 8
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	U	13	24	U	24		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13		13	30		30		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Naphthalene	240		13	350		64	200	(µg/L)	37
	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	U	13	32	_	32		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	94	**	13	110		30		(µg/L)	16
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene sec-Butylbenzene	13 13		13 13	20 24		20 24		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Styrene Styrene	13		13	100		14		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13		13	160		16		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13		13	26		26		(μg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Toluene	24000		1300	28000		150	1000	(µg/L)	15
	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene		UJv	13	18		18		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13		13	42		42		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Trichloroethene Trichlorofluoromethane	13 13		13	36 16		36 16		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Vinyl chloride		UJv	13 13	22		22		(μg/L) (μg/L)	NA NA
	INORGANICS	Aluminum	0.2		0.2	0.06		0.022		(μg/L)	NA
	INORGANICS	Arsenic	0.176		0.001	0.15		0.0033		(μg/L)	16
	INORGANICS	Barium	0.341		0.01	0.33		0.0022		(μg/L)	3
	INORGANICS	Chromium	0.0005	LJ	0.002	0.0016		0.0016		(µg/L)	NA
		Cobalt	0.0012	1	0.001	0.0009	J	0.00063	0.01	(µg/L)	29
MW-16	INORGANICS NIORGANICS			* *	0.00-	0.00.	T T	0.00**			. v ·
MW-16 MW-16	INORGANICS	Copper	0.002		0.002	0.0015		0.0015	0.01	(µg/L)	NA
MW-16 MW-16 MW-16					0.002 0.001 0.002	0.0015 0.0029		0.0015 0.0029 0.00084	0.01		NA NA 13

TABLE 1

May 1-				EDAT - L DK-								
NW-16 NORGANICS	WELL	ANALYTE COOLD	ANAL VTE				Docult			DI	Unite	DDD
MOVED BORGANICS Software 0.0005 0.0012 U 0.0002 0.015 pgt N. WILLER NORGANICS Tallemen 0.001 U 0.001 0.0007 0.0012 U 0.0007 0.0013 pgt N. WILLER NORGANICS Tallemen 0.005 U 0.001 0.0007 0.0017 U 0.0007 0.0013 U 0.0007 0.0017 U 0.0007 0.0013 U 0.0007 0.0017 U 0.0007 0.0013 U 0.0007 0.0017 U 0.0007 0.0013 U 0.0007 0.0017 U 0.0007 U 0.00					Quanner			J				
NWI-16 DORGANICS								U				NA
NWI-10 POLYCYCLIC ARGMATIC HYDROCARBONS Amelyhaphthidiaese 2-1 2 3 0.0002 0.0037 18 0.0002 0.0037 18 0.0002 0.0037 18 0.0002 0.0037 18 0.0002 0.0037 18 0.0002 0.0037 18 0.0002 0.0037 18 0.0002 0.0037 19 0.0039	MW-16	INORGANICS	Thallium			0.001	0.0078	U	0.0078			NA
NW-16 POLYCYCLIC AROMATIC HYDROCARBONS Enemphthese 2 U 2 0.059 U 0.059 9.96 gg L N N N POLYCYCLIC AROMATIC HYDROCARBONS Accempthylene 2 U 2 0.059 U 0.059 9.96 gg L N N N POLYCYCLIC AROMATIC HYDROCARBONS Accempthylene 2 U 2 0.059 U 0.059 9.96 gg L N N N POLYCYCLIC AROMATIC HYDROCARBONS Enemphtylene 2 U 2 0.059 U 0.059 9.96 gg L N N N POLYCYCLIC AROMATIC HYDROCARBONS Benezional and the polycyclic around the polycycli												NA
NW-16 POLYCYCLIC AROMATIC HYDROCARBONS Accomplate/see 2 U 2 0.079 U 0.059					LJ			JВ				
NW-16 POLYCYCLIC AROMATIC HYDROCARBONS Anthresene					TT			TT				
NW-16 DILYCYCLIC ARROMATIC HYDROCARRONS Anthracene 2 U 2 0.059 U 0.079 2 logs N. N. N. N. N. N. N. N. N. N. N. N. N.			•									
NW-16 DIACYCLIC ARROMATE HYDROCARRONS Remortalpymene 2 U 2 0.079 U 0.079 1.5 u.g.t. N. N. N. N. N. 16 DIACYCLIC ARROMATE HYDROCARRONS Remortalpymene 2 U 2 0.099 U 0.099 1.5 u.g.t. N. N. N. N. N. 16 DIACYCLIC ARROMATE HYDROCARRONS Remortalpymene 2 U 2 0.099 U 0.099 2.5 u.g.t. N. N. N. N. N. 16 DIACYCLIC ARROMATE HYDROCARRONS Remortalpymene 2 U 2 0.099 U 0.099 2.5 u.g.t. N. N. N. N. N. 16 DIACYCLIC ARROMATE HYDROCARRONS Remortalpymene 2 U 2 0.099 U 0.099 2.5 u.g.t. N. N. N. N. N. N. N. 16 DIACYCLIC ARROMATE HYDROCARRONS Remortalpymene 2 U 2 0.099 U 0.099 1.5 u.g.t. N. N. N. N. N. N. N. N. N. N. N. N. N.											,	
MW-16 DILYCYCLIC ARROMATIC HYDROCARRONS Benote/J.Hiporchiene 2 U 2 0.009 U 0.099 2.5 0.095 U 2.007 V 0.079 2.5 0.007 U 0.079 2.5 0.007 U 0.079 2.5 0.007 U 0.079 2.5 0.007 U 0.007 0.0					_			_			40 /	
NW-16 DI-VYCLIC AROMATIC HYDROCARBONS Bezzot/glummathenee 2 U 2 0.079 U 0.079 U 0.099 U	MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)pyrene			2	0.079	U	0.079	1.5	(µg/L)	NA
NW-16 DOLYCYCLIC AROMATIC HYDROCARBONS Enros/Hyborauthene 2 U 2 0.079 U												
MW-16 DILYCYCLIC AROMATIC HYDROCARBONS Diseaso(A) plumbarecene 2 U 2 0.079 U 0.075 U 0.070 U 0.075												
NW-16 DILYCYCLIC AROMATIC HYDROCARBONS Dibezold humbracene 2 U 2 0.059 U												
MW-16 DELYCYCLIC AROMATIC HYDROCARBONS Flooreme 2 U 2 0.009 U 0.009 2.5			_					_				
NW-16 POLYCYCLIC AROMATIC HYDROCARBONS Indenot 12.3-chpyrene 2 U 2 0.069 U 0.069 2 0.021 NW-16 POLYCYCLIC AROMATIC HYDROCARBONS Indenot 12.3-chpyrene 2 U 2 0.069 U 0.069 2 0.025 2 0.021 NW-16 POLYCYCLIC AROMATIC HYDROCARBONS Prene 2 U 2 0.011 0.011 2 0.025 U 2			, , ,									
NW-16 DELYCYCLIC AROMATIC HYDROCARBONS Prince 2 U 2 0.019 U 0.019 1.5 ug.L NA NW-16 DELYCYCLIC AROMATIC HYDROCARBONS Prince 2 U 2 0.011 0.011 0.012 U 0.011 2 ug.L NA NW-16 DELYCCLIC AROMATIC HYDROCARBONS Prince 2 U 2 0.011 0.011 0.012 U 0.012 2 ug.L NA NW-16 DELYCCLIC AROMATIC HYDROCARBONS Prince 2 U 2 0.011 0.018 U 0.018 2 ug.L NA NW-16 DELYCLIC AROMATIC BORGANIC COMPOUNDS 2.4-5-1-inchrophenol 100 U 100 0.15 U 0.15 2 ug.L NA NW-16 DELYCLIC AROMATIC BORGANIC COMPOUNDS 2.4-5-1-inchrophenol 100 U 100 0.15 U 0.15 2.5 ug.L NA NW-16 DELYCLIC AROMATIC BORGANIC COMPOUNDS 2.4-5-1-inchrophenol 2.00 U 200 0.39 U 0.39 S. ug.L NA NW-16 DELYCLIC AROMATIC BORGANIC COMPOUNDS 2.4-5-1-inchrophenol 2.00 U 2.00 0.39 U 0.39 S. ug.L NA NW-16 DELYCLIC AROMATIC BORGANIC COMPOUNDS 2.4-5-1-inchrophenol 2.00 U 2.00 0.39 U 0.39 S. ug.L NA NW-16 DELYCLIC AROMATIC BORGANIC COMPOUNDS 2.6-5-1-inchrophenol 2.00 U 2.00 0.079 U 0.079 0.90 ug.L NA NW-16 DELYCLIC AROMATIC BORGANIC COMPOUNDS 2.6-5-1-inchrophenol 2.00 U 2.00 0.079 U												
WW-16 SEMUVOLATILE ORGANIC COMPOUNDS 2.45-Trichlorophenol 100 U 100 0.25 U 0.25 2 (pg.L. N. N. WW-16 SEMUVOLATILE ORGANIC COMPOUNDS 2.45-Trichlorophenol 100 U 100 0.18 U 0.18 2 (pg.L. N. N. WW-16 SEMUVOLATILE ORGANIC COMPOUNDS 2.45-Trichlorophenol 100 U 100 0.18 U 0.18 2 (pg.L. N. N. WW-16 SEMUVOLATILE ORGANIC COMPOUNDS 2.45-Trichlorophenol 100 U 100 0.31 U 0.31 U 0.31 2.5 (pg.L. N. N. WW-16 SEMUVOLATILE ORGANIC COMPOUNDS 2.45-Trichlorophenol 100 U 100 0.31 U 0.31	MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene	2	U	2	0.069	U	0.069	2	(µg/L)	NA
MW-16 SEMUVOLATILE ORGANIC COMPOUNDS 2.4.5-Trichlorophenol 100 U 100 0.35 U 0.25 2 (grg.L. NA NW-16 SEMUVOLATILE ORGANIC COMPOUNDS 2.4.6-Trichlorophenol 100 U 100 0.15 U 0.15 U 0.15 2.5 (grg.L. NA NW-16 SEMUVOLATILE ORGANIC COMPOUNDS 2.4-Dinhorophenol 100 U 100 0.31 U 0.31 2.5 (grg.L. NA NW-16 SEMUVOLATILE ORGANIC COMPOUNDS 2.4-Dinhorophenol 100 U 100 0.31 U 0.31 U 0.31 2.5 (grg.L. NA NW-16 SEMUVOLATILE ORGANIC COMPOUNDS 2.4-Dinhorophenol 200 U 200 0.39 U 0.39 S (grg.L. NA NW-16 SEMUVOLATILE ORGANIC COMPOUNDS 2.4-Dinhorophenol 2.4-Dinhorophenol 2.00 U 2.00 0.39 U 0.39 S (grg.L. NA NW-16 SEMUVOLATILE ORGANIC COMPOUNDS 2.4-Dinhorophenol 2.4-Dinhoro					_							NA
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Erichtorophenol 100 U 100 0.15 U 0.15 2.5 ggs.L NA NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Dichtorophenol 100 U 100 0.15 U 0.15 2.5 ggs.L NA NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Dichtorophenol 100 U 100 0.31 U 0.31 U 0.31 2.5 ggs.L NA NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Dichtorophenol 200 U 200 0.39 U 0.39 S ggs.L NA NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Dichtorophenol 2.00 U 200 0.39 U 0.39 S ggs.L NA NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Dichtorophenol 100 U 100 0.079 U 0.079 0.099 ggs.L NA NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.5-Dichtorophenol 100 U 100 0.079 U 0.079 0.099 ggs.L NA NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.5-Dichtorophenol 100 U 100 0.079 U 0.07												
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Disthorophenol 100 U 100 0.15 U 0.31 U 2.5 (gs.L.) NA WW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Dinitrophenol 200 U 200 0.39 U 0.33 U 0.31 U 2.5 (gs.L.) NA WW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Dinitrophenol 200 U 100 0.39 U 0.31 U												
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Dimethylphenol 100 U 200 0.3 U 0.3 S. (gg/L. NA NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Dimitrotolucen 100 U 100 0.079 U							_					
SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Dinitrophenol 200 U 200 0.39 U 0.39 U 0.31 5 (gs.L.) NAW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2.4-Dinitrotolucne 100 U 100 0.079 U 0.070 U 0.0												
MW-16 SEMVOLATILE ORGANIC COMPOUNDS 2.4-Dinitrotoluene 100 U 100 0.13 U 0.13 1.5 (ug.L.) NA NW-16 SEMVOLATILE ORGANIC COMPOUNDS 2.4-Dinitrotoluene 100 U 100 0.079 U 0.079 0.079 (ug.L.) NA NW-16 SEMVOLATILE ORGANIC COMPOUNDS 2.5-Dinitrotoluene 100 U 100 0.079 U 0.070 U U U U U U U U U												
MW-16 SEMVOLATILE ORGANIC COMPOUNDS 2-6-Dinitrotoluene 100 U 100 0.079 U 0.079 0.99 (gg.L) NA NW-16 SEMVOLATILE ORGANIC COMPOUNDS 2-Chlorophenol 100 U 100 0.079 U 0.079												NA
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2-Chlorophenol 100 U 100 0.13 U 0.13 2 2 2.5	MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	100	U	100	0.079	U	0.079	0.99	(µg/L)	NA
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2-Nitrophenol 100 U 100 0.22 U 0.22 0.99 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 3.3-Dichlorobenzidine 100 U 100 0.22 U 0.22 0.99 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 3.3-Dichlorobenzidine 100 U 100 0.18 U 0.18 3.9 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 3.3-Dichlorobenzidine 200 U 200 1.0 U 0.16 2.5 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Dichinor-2-methylphenol 200 U 200 1.0 U 0.16 2.5 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Dichinor-2-methylphenol 100 U 100 0.099 U 0.099 U 1.5 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Dichinor-3-methylphenol 100 U 100 0.099 U 0.099 U 1.5 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Chloroaniline 100 U 100 0.21 U 0.21 0.99 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Chlorophenyl-phenylether 100 U 100 0.21 U 0.21 0.99 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Nitrophenol 200 U 200 0.099 U 0.099 U 1.5 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Nitrophenol 200 U 200 0.25 U 0.25 2.5 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Nitrophenol 200 U 200 0.079 U 0.079 1.5 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroschosy)methane 100 U 100 0.13 U 0.13 1.5 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroschosy)methane 100 U 100 0.15 U 0.15 1.5 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroschosy)methane 100 U 100 0.15 U 0.15 1.5 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroschosy)methane 100 U 100 0.15 U 0.15 1.5 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroschosy)methane 100 U 100 0.15 U 0.15 1.5 (pg.L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroschosy)methane 100 U 100 0.15 U 0.15 1.5												
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2-Nitrophenol 100 100 0.18 U 0.18 9.9 0.92 U NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 3.3-Dichlorobenzidine 100 U 100 0.18 U 0.18 9.9 0.92 U NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 3.4-Dichlorobenzidine 200 U 200 0.16 U 0.16 2.5 0.92 U NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4.6-Dinitro 2-methylphenol 200 U 200 T U 0.82 2.5 0.92 NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4.6-Dinitro 2-methylphenol 200 U 200 T U 0.82 2.5 0.92 U 0.99 U 0.099 U 0												
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 3Dichlorobenzidine 100 U 100 0.18 U 0.18 0.9 (ug.L.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 3Nitroaniline 200 U 200 0.16 U 0.16 2.5 (ug.L.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4Bromophenyl-pheny												
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-6 Dinitro 2-methylphenol 200 U 200 0.16 U 0.16 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-6 Dinitro 2-methylphenol 200 U 200 1 U 0.82 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-6 Dinitro 2-methylphenol 100 U 100 0.099 U 0.099 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Chloro-a methylphenol 100 U 100 0.17 U 0.17 0.99 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Chloro-a methylphenol 100 U 100 0.17 U 0.17 0.99 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Nitroaniline 100 U 100 0.099 U 0.099 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Nitroaniline 200 U 200 0.099 U 0.099 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Nitroaniline 200 U 200 1 U 0.55 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Aniline 200 U 200 1 U 0.55 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Aniline 200 U 200 0.079 U 0.079 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroethoxy)methane 100 U 100 0.15 U 0.15 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroethoxy)methane 100 U 100 0.15 U 0.15 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroethoxy)methane 100 U 100 0.15 U 0.17 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroethoxy)methane 100 U 100 0.15 U 0.17 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroethoxy)methane 100 U 100 0.15 U 0.17 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Dihen-potyphthalate 100 U 100 0.15 U 0.17 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Dihen-potyphthalate 100 U 100 0.099 U 0.099 U 0.099 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Dih-n-octyphthalate 100 U 100 0.099 U 0.099 U 0.099 2.0 (µg/L) N												
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-6-Dimiro-2-methylphenol 200 U 200 1 U 0.82 2.5 Gg/L NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Bromophenyl-phenylether 100 U 100 0.099 U 0.090				_								
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Choro-3-methylphenol 100 U 100 0.099 U 0.009												
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Chlorophenyl-phenylether 100 U 100 0.21 U 0.21 0.99 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Nitrophenol 200 U 200 0.25 U 0.25 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Nitrophenol 200 U 200 0.079 U 0.55 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Nitrophenol 200 U 200 0.079 U 0.079 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Aniline 200 U 200 0.079 U 0.079 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroethyl)ether 100 U 100 0.13 U 0.13 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroethyl)ether 100 U 100 0.15 U 0.15 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroethyl)ether 100 U 100 0.15 U 0.15 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chlylhexyl)phthalate 100 U 100 0.37 U 0.37 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Buylbenzylphthalate 100 U 100 0.12 U 0.12 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Ditentylphthalate 100 U 100 0.079 U 0.079 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Ditentylphthalate 100 U 100 0.069 U 0.069 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Ditentylphthalate 100 U 100 0.069 U 0.069 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Ditentylphthalate 100 U 100 0.069 U 0.069 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Ditentylphthalate 100 U 100 0.10 U 0.11 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Ditentylphthalate 100 U 100 0.10 U 0.11 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Hexachloroethane 100 U 100 0.10 U 0.11 U 0.11 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Hexachlo							0.099	U				
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Chlorophenyl-phenylether 100 U 100 0.099 U 0.099 1.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Nitrophenol 200 U 200 0.25 U 0.25 2.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Aniline 200 U 200 0.079 U 0.079 1.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Aniline 200 U 200 0.079 U 0.079 U 0.079 1.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroethy)methane 100 U 100 0.13 U 0.15 1.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chloroethy)methane 100 U 100 0.15 U 0.15 1.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chlylhexyl)phthalate 100 U 100 0.37 U 0.37 2.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Bis(2-chlylhexyl)phthalate 100 U 100 0.37 U 0.37 2.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Dibenzofuran 100 U 100 0.079 U 0.079 1.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Dibenzofuran 100 U 100 0.079 U 0.079 1.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Dibenzofuran 100 U 100 0.079 U 0.079 1.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Dibenzofuran 100 U 100 0.099 U 0.099 2.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Dibenzofuran 100 U 100 0.099 U 0.099 2.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Dibenzofuran 100 U 100 0.11 U 0.11 2.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Dibenzofuran 100 U 100 0.11 U 0.11 2.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Hexachlorocyclopentadiene 100 U 100 0.11 U 0.11 1.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Hexachlorochane 100 U 100 0.11 U 0.11 1.5 (µgT.) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Hexachlorochane 100 U 100	MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol				0.17	U	0.17	0.99	(µg/L)	NA
MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Nitroaniline 200 U 200 0.25 U 0.25 2.5 (µgT.) NA NW-16 SEMIVOLATILE ORGANIC COMPOUNDS 4-Nitrophenol 200 U 200 1 U 0.55 2.5 (µgT.) NA NW-16 SEMIVOLATILE ORGANIC COMPOUNDS Aniline 200 U 200 0.079 U 0.079												NA
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MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Diethylphthalate 100 U 100 0 2 U 1.5 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Dimethylphthalate 100 U 100 0 0.069 U 0.069 0 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Di-n-buylphthalate 100 U 100 0 0.11 U 0.11 2.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Di-n-octylphthalate 100 U 100 0 0.16 U 0.16 5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Hexachlorochenzene 100 U 100 0 0.11 U 0.11 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Hexachlorochenae 100 U 100 0 0.13 U 0.13 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Hexachlorochenae 100 U 100 0 0.11 U 0.11 1.5 (µg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Nitrobenzene 100 U 100 0 0.11 U 0.11 1.5 (µg/L) NA MW-16								_			40 /	NA
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MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Di-n-butylphthalate 100 U 100 0.11 U 0.11 2.5 (μg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Di-n-octylphthalate 100 U 100 0.16 U 0.16 5 (μg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Hexachlorobenzene 100 U 100 0.11 U 0.11 1.5 (μg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Hexachlorocyclopentadiene 100 U 100 0.13 U 0.13 U 0.13 1.5 (μg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Hexachlorocyclopentadiene 100 U 100 0.099 U 0.099 U 0.099 2 (μg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Isophorone 100 U 100 0.11 U 0.11 1.5 (μg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Isophorone 100 U 100 0.11 U 0.11 1.5 (μg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Nitrobenzene 100 U 100 0.11 U 0.11 1.5 (μg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Pentachlorophenol 4 U 4 1 U 0.6 2.5 (μg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Pentachlorophenol 4 U 4 1 U 0.6 2.5 (μg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Pentachlorophenol 4 U 4 1 U 0.6 2.5 (μg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Pentachlorophenol 4 U 4 1 U 0.6 2.5 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1,1.2-Tetrachloroethane 13 U 13 0.18 U 0.18 1 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1,2.2-Tetrachloroethane 13 U 13 0.28 U 0.22 1 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1,2.2-Tetrachloroethane 13 U 13 0.28 U 0.22 1 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1-Dichloroethane 13 U 13 0.19 U 0.11 1 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1-Dichloroethane 13 U 13 0.19 U 0.19 1 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1-Dichloroethane 13 U 13 0.29 U 0.29 U 0.29 1 (μg/L) NA MW-16 VOLATILE ORGANIC COMP											4.0	
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MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Pentachlorophenol 4 U 4 U 4 U 0.6 (μg/L) NA MW-16 SEMIVOLATILE ORGANIC COMPOUNDS Phenol 100 U 100 U 0.04 U 0.04 U 0.04 L 1.5 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1,1,2-Tetrachloroethane 13 U 13 0.18 U 0.18 I 1 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1,1-Trichloroethane 13 U 13 0.22 U 0.15 I 1 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1,2-Trichloroethane 13 U 13 0.22 U 0.22 I 1 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1,2-Trichloroethane 13 U 13 0.28 U 0.28 I 1 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1-Dichloroethane 13 U 13 0.11 U 0.11 I 1 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1-Dichloroethane 13 U 13 0.19 U 0.19 I 1 (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,1-Dichloropropene 13 U 13 0.21 U 0.21 I (μg/L) NA MW-16 VOLATILE ORGANIC COMPOUNDS 1,2,3-Trichloropropene 13 U 13 0.21 U												
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MW-16 VOLATILE ORGANIC COMPOUNDS 1,2,4-Trichlorobenzene 13 U 13 0.31 U 0.31 1 (µg/L) NA												
			1,2,4-Trientorobenzene			13	2		0.14			

TABLE 1

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WELL	ANALYTE_GROUP	ANALYTE		A Lab Res Qualifier		Result	Oualifier	b Results MDL	RL	Units	RPD
	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropar		-	13		U	0.81		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3		1.3	0.18	·	0.18		$(\mu g/L)$	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13		13	0.1		0.1		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13	U	13	0.14	U	0.14		(μg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	U	13	0.16	U	0.16	1	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	13		13	1		0.1		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13		13	0.13		0.13		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13		13	0.22		0.22		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13		13	0.11		0.11		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane 2-Butanone	13 130		13 130	0.13	U	0.13		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	130		130	0.13	_	0.70		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130		130	0.15		0.35		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene		U	13	0.14		0.14		(µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130	U	130	0.45	U	0.45	2	(µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Acetone	130	U	130	1	U	0.99	5	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Benzene	1800		130	2100		8	100	(µg/L)	15
	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13		13	0.19		0.19		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane		U	13	0.16		0.16		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Bromoform	13		13	0.19		0.19		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Bromomethane Carbon Disulfide	13	UJv	13	0.25		0.25		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide Carbon tetrachloride	13		13 13	0.24		0.24		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13		13	0.13		0.13		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13		13	0.08		0.08		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Chloroform	13		13	3	_	0.13		$(\mu g/L)$	NA
	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13		13	0.18		0.18		(μg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13	U	13	0.06	U	0.06	1	(µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13	U	13	0.18	U	0.18	1	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13		13	0.15		0.15	1	$(\mu g/L)$	NA
	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13		13		U	0.52		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13		13	0.12		0.12		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	2.9		13	2		0.11		(µg/L)	23
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene Isopropylbenzene	13 14	U	13 13	0.17 22	U	0.17 0.18		(μg/L) (μg/L)	NA 44
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	II	13	1	ĭ	0.13		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13		13	0.15	-	0.12		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Naphthalene	17		13	18		0.32		(μg/L)	6
	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	U	13	2		0.16		(µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	17		13	24		0.15	1	(µg/L)	34
MW-16	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13		13	0.36	J	0.1	1	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13		13	2		0.12	1	$(\mu g/L)$	NA
	VOLATILE ORGANIC COMPOUNDS	Styrene	13		13	0.078		0.07		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13		13	0.42		0.08		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13		13	0.13		0.13		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Toluene trans-1,2-Dichloroethene	13 13		13 13	0.09		0.15		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13		13			0.09		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13		13			0.18		$(\mu g/L)$	
	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13		13	0.08		0.08		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride		UJ	13	0.11	U	0.11		(µg/L)	NA
MW-17	INORGANICS	Aluminum	0.2	U	0.2	0.059	J	0.022	0.5	(µg/L)	NA
	INORGANICS	Arsenic	0.0271		0.001	0.026		0.0033		(µg/L)	4
	INORGANICS	Barium	0.114		0.01	0.12		0.0022		(µg/L)	5
	INORGANICS	Chromium	0.002	U	0.002	0.0016	_	0.0016		(µg/L)	NA
	INORGANICS	Cobalt	0.0013	* *	0.001	0.0013		0.00063		(µg/L)	0
	INORGANICS INORGANICS	Copper Lead	0.002 0.00027		0.002	0.0015		0.0015		(µg/L)	NA NA
	INORGANICS INORGANICS	Manganese	0.00027	LJ	0.001	0.0029	U	0.0029		(μg/L) (μg/L)	NA 1
	INORGANICS	Mercury	0.490	LJ	0.0001	2.6E-05	U	0.00004	0.0002		NA
	INORGANICS	Nickel	0.0001		0.0002	0.0018		0.00020		(μg/L)	NA
	INORGANICS	Selenium	0.0013	LJ	0.005	0.0042		0.0042		(μg/L)	NA
	INORGANICS	Thallium	0.001		0.001	0.0078		0.0078		(μg/L)	NA
	INORGANICS	Vanadium	0.005		0.005	0.0017		0.0017		(μg/L)	NA
	INORGANICS	Zinc	0.0008	LJ	0.002	0.0028	J B	0.0022		(μg/L)	111
		2-Methylnaphthalene	18		5	22		0.7		(µg/L)	20
		Acenaphthene	0.23		0.1		U	0.8		(µg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS		0.1		0.1		U	0.6		(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Anthracene	0.1	U	0.1	1	U	0.5	10	$(\mu g/L)$	NA

TABLE 1

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WELL	ANALYTE_GROUP	ANALYTE		A Lab Res Qualifier		Result	PRP Lab R Qualifier M	esults MDL	RL	Units	RPD
	POLYCYCLIC AROMATIC HYDROCARBONS		0.1	-	0.1	1		0.8		(µg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS		0.1		0.1	1		0.8		(μg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(b)fluoranthene	0.1	U	0.1	1	U	0.7		(µg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS		0.1		0.1	1		0.8		(µg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS		0.1		0.1	1		0.9		(µg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS	Chrysene	0.1		0.1	1		0.8		(µg/L)	NA
		Dibenzo(a,h)anthracene Fluoranthene	0.1		0.1	1		0.8		(μg/L) (μg/L)	NA NA
	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	0.33	U	0.1	1		0.7		(μg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene	0.1	U	0.1	1		0.7		$(\mu g/L)$	NA
	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene	0.13		0.1	1	U	0.6	15	(μg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene	0.1	U	0.1	1		1.1	20	(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol		U	5		U	2.5		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol		U	5	2		1.8		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol 2,4-Dimethylphenol		U U	5		U U	1.5 3.1		(μg/L) (μg/L)	NA NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	10		10	4		3.9		(μg/L) (μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene		U	5		U	1.3		(μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene		U	5		U	0.8		(μg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	5	U	5	1	U	0.8		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol		U	5	1		1.3		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline	10		10	2		1.9		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol		U	5	2		2.2		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine		U	5		U	1.8		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline 4,6-Dinitro-2-methylphenol	10		10 10	2 8		1.6 8.3		(μg/L) (μg/L)	NA NA
	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether		U	5	1		1		(μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol		U	5	2		1.7		(μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline		U	5		U	2.1		(μg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	5	U	5	1	U	1	15	(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	10		10		U	2.5		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	10		10	6		5.6		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	10		10	1		0.8		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane Bis(2-Chloroethyl)ether		U U	5	1 2		1.3		(μg/L) (μg/L)	NA NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate		LJ	5	4		3.7		(μg/L) (μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate		U	5	1		1.2		(μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran		U	5	1	U	0.8		(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	5	U	5	15	U	15	25	(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate		U	5	1		0.7		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate		U	5	1		1.1		(μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate		U U	5	1	U	1.6		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene Hexachlorocyclopentadiene		U	5		U	1.1		(μg/L) (μg/L)	NA NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane		U	5		U	1.3		(μg/L) (μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone		U	5		U	1.1		(μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene		U	5	1		1.1		(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine		U	5	1	U	1	25	(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol	0.2	U	0.2	6		6.1		(µg/L)	
	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	7.2		5	3		0.4		(µg/L)	97
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane	13 13		13 13	9		7.5		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13		13	11		11		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane		U	13	14		14		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13		13	6		5.5		(μg/L)	
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13	U	13	10	U	9.5	50	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13		13	11		11		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13		13	15		15		(μg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13		13	16	U	16		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene 1,2-Dibromo-3-chloropropar	240		0.05	290	U *	7 41		(µg/L)	19
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropar 1,2-Dibromoethane	0.05	UJv H	0.05	9		41		(μg/L) (μg/L)	200 NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13		13	5		5		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13		13	7		7		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	U	13	8		8		(μg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	84		13	98		5	50	(µg/L)	15
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13		13	7		6.5		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13		13	11		11		(μg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13	Ü	13	6	U	5.5	50	$(\mu g/L)$	NA

TABLE 1

			EPA Lab Results			PRP Lab Results					
WELL	ANALYTE GROUP	ANALYTE		A Lab Res Qualifier		Result	Oualifier		RL	Units	RPD
	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13		13		U	6.5		(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130	U	130	38		38	100	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13		13		U	6.5		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130		130	18		18		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13		13		U	7		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone Acetone	130 130		130 130	23 50		23 50		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Benzene	2500	U	130	2500	U	16		(μg/L) (μg/L)	0
	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13	U	130	10	U	9.5		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13	_	13		U	8		$(\mu g/L)$	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromoform	13	U	13	10	U	9.5	50	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Bromomethane		UJv	13	13		13		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13		13	12		12		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13		13		U	7.5		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Chlorobenzene Chloroethane	13 13		13		U U	6		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Chloroform	13		13	17		6.5		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Chloromethane	13		13		U*	9		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13		13		U	3		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13		13		U	9		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13		13		U	7.5		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13		13	26		26		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13	U	13		U*	6		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	320	1.7	13	340	T T	5.5		(µg/L)	6
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene Isopropylbenzene	13 16	U	13	22	U	8.5		(μg/L) (μg/L)	NA 32
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	IT	13		U	6		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13		13		U	7.5		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Naphthalene	76		13	150		16		(μg/L)	66
MW-17	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	U	13	8	U	8		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	27		13	41		7.5	50	(µg/L)	41
	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13		13		U	5		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13	-	13		U	6		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Styrene tert-Butylbenzene	13 13		13		U U	3.5		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13		13		U	6.5		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS	Toluene	13		13	10		7.5		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13		13		U	4.5		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13	U	13	11	U	11		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13		13		U	9		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13		13		U	4		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride		UJ	13		U	5.5		(µg/L)	NA
	INORGANICS	Aluminum	0.2	U	0.2	0.041	J	0.022		(µg/L)	NA
	INORGANICS INORGANICS	Arsenic Barium	0.148		0.001	0.15		0.0033		(μg/L) (μg/L)	5
	INORGANICS	Chromium	0.00055	LJ	0.002	0.0016	IJ	0.0022		(μg/L) (μg/L)	NA
	INORGANICS	Cobalt	0.0028		0.001	0.0029		0.00063		$(\mu g/L)$	_
MW-18	INORGANICS	Copper	0.0014	LJ	0.002	0.0024	J B	0.0015		(µg/L)	
MW-18	INORGANICS	Lead	0.005		0.001	0.0033	J	0.0029		(µg/L)	41
	INORGANICS	Manganese	0.93		0.001	1		0.00084		(µg/L)	0
	INORGANICS	Mercury	0.000036	LJ	0.0002	2.6E-05		0.000026	0.0002		NA
	INORGANICS INORGANICS	Nickel	0.0051		0.001	0.0047		0.0018		(µg/L)	8 NA
	INORGANICS INORGANICS	Selenium Thallium	0.0128	II	0.005	0.0042 0.0078		0.0042 0.0078		(μg/L) (μg/L)	NA NA
	INORGANICS	Vanadium	0.001		0.001	0.0078		0.0078		(μg/L) (μg/L)	NA
	INORGANICS	Zinc	0.003		0.002	0.0017		0.0017		(μg/L)	78
		2-Methylnaphthalene	51		50			0.69		(μg/L)	23
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthene	1	U	1		U	0.79		(µg/L)	
	POLYCYCLIC AROMATIC HYDROCARBONS			U	1		U	0.59		(µg/L)	
	POLYCYCLIC AROMATIC HYDROCARBONS			U	1			0.49	9.9	(µg/L)	NA
		Benzo(a)anthracene		U	1		U U	0.79		(µg/L)	
		Benzo(a)pyrene Benzo(b)fluoranthene		U	1 1		U	0.79 0.69		(μg/L) (μg/L)	NA NA
		Benzo(g,h,I)perylene		U	1		U	0.69		(μg/L) (μg/L)	NA
		Benzo(k)fluoranthene		U	1		U	0.79		(μg/L)	
	POLYCYCLIC AROMATIC HYDROCARBONS			U	1		U	0.79		(μg/L)	
		Dibenzo(a,h)anthracene	1	U	1	1	U	0.79		(μg/L)	
		Fluoranthene		U	1		U	0.69		(µg/L)	
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	1	U	1	1	U	0.69	15	(µg/L)	NA

TABLE 1

			EDIT I D I			Its PRP Lab Results					
WELL	ANALYTE_GROUP	ANALYTE		A Lab Res Qualifier		Result	PRP Lat Qualifier		RL	Units	RPD
	POLYCYCLIC AROMATIC HYDROCARBONS			U	1		U	0.69		(µg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS			U	1	1	U	0.59		(μg/L)	NA
	POLYCYCLIC AROMATIC HYDROCARBONS	,		U	1	1		1.1		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol	50		50	3		2.5		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol 2,4-Dichlorophenol	50 50		50 50	2		1.8 1.5		(μg/L) (μg/L)	NA NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	500		100	660	U	1.5		(μg/L) (μg/L)	28
	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	100		100	4	U	3.8		$(\mu g/L)$	
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene	50	U	50	1	U	1.3	15	(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	50		50	1		0.79		(µg/L)	
	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	50		50	1		0.79		(µg/L)	
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol 2-Nitroaniline	50 100		50 100	1 2		1.3 1.9		(μg/L) (μg/L)	
	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol	50		50	2		2.2		(μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine	50		50		U	1.8		$(\mu g/L)$	
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline	100	U	100	2	U	1.6	25	(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	100		100	8		8.2		(µg/L)	
	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether	50		50	1		0.99		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol 4-Chloroaniline	50 50		50 50	2		1.7 2.1		(μg/L) (μg/L)	NA NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	50		50	1		0.99		(μg/L) (μg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	100		100	3	_	2.5		(μg/L)	
	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	100	U	100	6		5.5		(µg/L)	
	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	100		100	1		0.79		(µg/L)	
	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	50		50		U	1.3		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether Bis(2-ethylhexyl)phthalate	50 50		50 50	4	U	1.5 3.6		(μg/L) (μg/L)	NA NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	50		50	1		1.2		(μg/L) (μg/L)	NA NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	50		50	1		0.79		$(\mu g/L)$	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	50	U	50	15	U	15		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate	50		50	1		0.69	25	(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate	50		50	1		1.1		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate Hexachlorobenzene	50 50		50 50	2 1		1.6 1.1		(μg/L) (μg/L)	NA NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	50		50	1	_	1.1		(μg/L) (μg/L)	
	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	50		50	1		0.99		$(\mu g/L)$	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	50		50	1	U	1.1		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	50		50	1		1.1		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	50		50	1	_	0.99		(µg/L)	NA
	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol Phenol	92	U	50	6 31	U	0.39		(μg/L) (μg/L)	NA 99
	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13		13	36	U	36		(μg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13		13	30		30		$(\mu g/L)$	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13	U	13	44	U	44	200	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13		13	56		56		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13		13	22		22		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene 1.1-Dichloropropene	13		13 13	38 42		38 42		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13	_	13	58	_	58		(μg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13		13	62		62		(µg/L)	
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	420		13	480		28	200	(µg/L)	13
	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropar	13		13	160		160		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3		1.3	36		36		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene 1,2-Dichloroethane	13 13		13 13	20 28		20 28		(μg/L) (μg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13		13	32		32		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	180		13	190		20		(μg/L)	5
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13		13	26		26		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13		13	44		44		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13		13	22		22		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane 2-Butanone	13 130		13 130	26 150		26 150		(μg/L) (μg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	130		130	26		26		(μg/L) (μg/L)	
	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130		130	70		70		(μg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13		13	28		28		(μg/L)	
	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130		130	90		90		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	Acetone	130		130	200	U	200		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	Benzene	21000		630	22000	***	400		(µg/L)	
WIW-18	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13	U	13	38	U	38	200	$(\mu g/L)$	NA

TABLE 1

		T	EPA Lab Results		PRP Lab Results						
WELL	ANALYTE_GROUP	ANALYTE		A Lab Res Qualifier		Result	Oualifier		RL	Units	RPD
	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13	•	13	32	_	32		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Bromoform	13		13	38		38		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Bromomethane		UJv	13	50	_	50		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide Carbon tetrachloride	13		13	48		48 30		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Carbon tetrachioride Chlorobenzene	13 13		13 13	30 24		24		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Chloroethane	13		13	16		16		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Chloroform	13		13	26		26		$(\mu g/L)$	NA
	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13		13	36	U	36		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13		13	12		12	200	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13		13	36		36		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13		13	30		30		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Dibromomethane Dichlorodifluoromethane	13 13		13 13	100 24		100 24		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	850		630	960	0 .	22		(μg/L) (μg/L)	12
	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13		13	34	U	34		$(\mu g/L)$	
	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	47		13	56	J	36		(µg/L)	18
	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13		13	24	U	24		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13		13	30	U	30		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	Naphthalene	130		13	160	J	64		(µg/L)	21
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene n-Propylbenzene	13 44	U	13 13	32 52	U I	32 30		(μg/L) (μg/L)	NA 17
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13	IT	13	20	II	20		(μg/L) (μg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13		13	24		24		(μg/L)	
	VOLATILE ORGANIC COMPOUNDS	Styrene	13		13	19		14		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13	U	13	16	U	16		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13		13	26	U	26		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Toluene	3900		630	4500		30		(µg/L)	14
	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13		13	18		18		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene Trichloroethene	13 13		13 13	42 36		42 36		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13		13	16		16		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride		UJ	13	22		22		$(\mu g/L)$	NA
	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	U	13	9	U	9		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13		13	8	U	7.5		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13		13	11		11		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13		13	14		14		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane 1,1-Dichloroethene	13 13		13 13	6 10		5.5 9.5		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13		13	11	_	11		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13		13	15	_	15		$(\mu g/L)$	NA
	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13		13	16	U	16		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	250		13	300		7	50	(µg/L)	18
	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropar	13		13		U *	41		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3		1.3	9		9		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene 1,2-Dichloroethane	13 13		13 13	5 7	_	5 7		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1.2-Dichloropropane	13		13		U	8		(μg/L) (μg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	72		13	86		5		$(\mu g/L)$	
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13		13	7	U	6.5		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13		13	11		11		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13		13	6		5.5		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13		13	7		6.5		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	2-Butanone 2-Chlorotoluene	130		130 13	38 7		38 6.5		(μg/L) (μg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130		130	18		18		(μg/L) (μg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	130		130	7		7		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130		130	23		23		(μg/L)	
	VOLATILE ORGANIC COMPOUNDS	Acetone	130		130	50	U	50		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	Benzene	3900		250	4400		40		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13		13	10		9.5		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane Bromoform	13 13		13 13	8 10		9.5		(μg/L) (μg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Bromoform Bromomethane		UJv	13	13		9.5		(μg/L) (μg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13		13	12		12		(μg/L) (μg/L)	
	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13		13	8		7.5		(μg/L)	
	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13		13	6		6		(μg/L)	
	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13		13	4		4	100	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Chloroform	13	U	13	13	J	6.5	50	(µg/L)	NA

TABLE 1

WELL	ANALYTE_GROUP	ANALYTE		A Lab Res Qualifier		Result	PRP Lab Results Oualifier MDL	RL	Units	RPD
	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13	-	13				(ug/L)	NA
	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13		13	3			(μg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13	U	13	9	U	9 50	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13		13	8			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13		13	26			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13	U	13				(µg/L)	NA 22
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Ethylbenzene Hexachlorobutadiene	410 13	II	13 13	510 9	5. U 8.		(μg/L) (μg/L)	22 NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	21	U	13	30			(μg/L) (μg/L)	35
	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	U	13	130			(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13	U	13	8	U 7.		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Naphthalene	130		13	180	1	6 50	(µg/L)	32
	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	U	13	8			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	33	**	13	48	J 7.		(µg/L)	37
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene sec-Butylbenzene	13 13		13 13	5			(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Styrene	13		13	4			(μg/L) (μg/L)	NA NA
MW-19	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13		13		U 3.		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13		13		U 6.		(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Toluene	27		13	26	J 7.	5 50	(µg/L)	4
	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13		13	5			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13		13	11			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13		13	9			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13		13	4			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Vinyl chloride 1.1.1.2-Tetrachloroethane	0.5	UJ	13 0.5	0.18			(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5		0.5	0.15			(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1.1.2.2-Tetrachloroethane		UJv	0.5	0.22			(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5		0.5	0.28			(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5	U	0.5	0.11	U 0.1	1 1	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5		0.5	0.19			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5		0.5	0.21			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5		0.5	0.29			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene	0.5		0.5	0.31			(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropar	0.05		0.05		U 0.8		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05		0.05	0.18			(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5	U	0.5	0.1	U 0.		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5		0.5	0.14			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5		0.5	0.16			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5		0.5	0.1			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene 1,3-Dichloropropane	0.5		0.5 0.5	0.13			(μg/L) (μg/L)	NA NA
MW-20	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5		0.5	0.22			(μg/L) (μg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5		0.5	0.13			(μg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2-Butanone		U	5		U 0.7		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5	U	0.5	0.13	U 0.1	3 1	(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	2-Hexanone		U	5	0.35			(µg/L)	_
	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5		0.5	0.14			(µg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone Acetone		U U	5 5	0.45	U 0.4 U 0.9		(μg/L) (μg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Benzene	0.5	_	0.5	0.08			(μg/L) (μg/L)	
	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5		0.5	0.19			(μg/L)	
	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5		0.5	0.16			(µg/L)	
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	U	0.5	0.19	U 0.1		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Bromomethane		UJv	0.5	0.25			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5		0.5	0.24			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5		0.5	0.15			(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Chlorobenzene Chloroethane	0.5		0.5 0.5	0.12			(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5		0.5	0.08			(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5		0.5	0.13			(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.5		0.5	0.06			(μg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5		0.5	0.18		8 1	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5		0.5	0.15			(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5		0.5		U 0.5		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5		0.5	0.12			(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Ethylbenzene Hexachlorobutadiene	0.5		0.5	0.11			(µg/L)	
IVI VV -20	VOLATILE ORGANIC COMPOUNDS	riexacinorobutadiene	0.5	U	0.5	0.17	U 0.1	/ 1	$(\mu g/L)$	NA

TABLE 1

		1	EPA Lab Results			PRP Lab Results					
WELL	ANALYTE_GROUP	ANALYTE		A Lab Res Qualifier		Result	Oualifier	MDL	RL	Units	RPD
	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.5		0.5	0.18		0.18		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	2.4		0.5	3		0.12		(μg/L)	26
	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5		0.5	0.15		0.15	5	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Naphthalene		UM	0.5	0.32		0.32		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5		0.5	0.16		0.16		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene p-Isopropyltoluene	0.5		0.5	0.15		0.15		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5		0.5	0.12		0.12		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5		0.5	0.07		0.07		(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	U	0.5	0.08	U	0.08	1	(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	0.5		0.5	0.13		0.13		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5		0.5	0.15		0.15		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene trans-1,3-Dichloropropene	0.5		0.5 0.5	0.09		0.09		(μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Trichloroethene	0.5		0.5	0.21		0.21		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5		0.5	0.08		0.08		$(\mu g/L)$	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	UJ	0.5	0.11	U	0.11		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5		0.5	0.18		0.18	1	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5		0.5	0.15		0.15		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5		0.5	0.22		0.22		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane 1,1-Dichloroethane	0.5	UJv	0.5	0.28		0.28		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5		0.5	0.11		0.11		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5		0.5	0.21		0.21		$(\mu g/L)$	NA
	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	U	0.5	0.29	U	0.29		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5		0.5	0.31	U	0.31	1	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5		0.5	0.14		0.14		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropar	0.05		0.05		U	0.81		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane 1,2-Dichlorobenzene	0.05		0.05	0.18		0.18		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.53	U	0.5	1		0.14		(μg/L)	30
	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5	U	0.5	0.16		0.16		$(\mu g/L)$	NA
	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	U	0.5	0.1	U	0.1		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5		0.5	0.13		0.13		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5		0.5	0.22		0.22		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5		0.5	0.11		0.11		(μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane 2-Butanone		U	5		U	0.13		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5		0.5	0.13		0.13		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	2-Hexanone		U	5	0.35		0.35		$(\mu g/L)$	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5	U	0.5	0.14	U	0.14		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone		U	5	0.45		0.45		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Acetone		U	5	0.22	U	0.99		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Benzene Bromobenzene	0.5		0.5	0.33	J I ĭ	0.08		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5		0.5	0.19	U	0.19		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5		0.5	0.19	U	0.19		$(\mu g/L)$	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	UJv	0.5	0.25	U	0.25		(μg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5		0.5	0.24		0.24		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5		0.5	0.15		0.15		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5		0.5	0.12		0.12		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Chloroethane Chloroform	0.5		0.5 0.5	0.08		0.08		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5		0.5	0.17		0.13		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.78		0.5	1		0.16		(μg/L)	5
	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene		UJv	0.5	0.18	U	0.18		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5		0.5	0.15		0.15		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5		0.5	1		0.52		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane Ethylbongone	0.5		0.5	0.12	U *	0.12		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Ethylbenzene Hexachlorobutadiene	5.9 0.5		0.5 0.5	0.17	T T	0.11		(μg/L) (μg/L)	11 NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene		J^	0.5	0.17	U	0.17		(μg/L) (μg/L)	NA 5
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5		0.5	0.37	J	0.13		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5		0.5	0.15		0.15		(μg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Naphthalene		UM	0.5	3		0.32	1	(µg/L)	59
	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5		0.5	0.37	J	0.16		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5		0.5	2	**	0.15		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5		0.5	0.1		0.1		(μg/L)	
1 V1 W - 2 I	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.27	LJ	0.5	0.26	J	0.12	1	$(\mu g/L)$	4

TABLE 1

		T	EPA Lab Results			PRP Lab Results				1	
WELL	ANALYTE GROUP	ANALYTE		A Lab Res Qualifier		Result	Oualifier		RL	Units	RPD
	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5		0.5	0.07	·	0.07		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5		0.5	0.19	_	0.08		(μg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	1.2	J^	0.5	1		0.13	1	(µg/L)	0
	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5		0.5	0.15		0.15		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5		0.5	0.09		0.09		(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene		UJv	0.5	0.21	U	0.21		(µg/L)	NA
MW-21		Trichloroethene	2.3		0.5	2	* *	0.18		(µg/L)	0
MW-21	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane Vinyl chloride	0.5		0.5	0.08		0.08		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5		0.5	0.11		0.11		(μg/L) (μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1.1.1-Trichloroethane	0.5		0.5	0.15		0.15		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5		0.5	0.22		0.22		$(\mu g/L)$	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5		0.5	0.28	U	0.28		(µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5	U	0.5	0.11	U	0.11	1	(µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5		0.5	0.19		0.19		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5		0.5	0.21		0.21		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5		0.5	0.29		0.29		(µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5		0.5	0.31		0.31		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene 1,2-Dibromo-3-chloropropar	0.05		0.5	0.14	U	0.14 0.81		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05		0.05	0.18	_	0.81		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.03		0.03	0.13		0.18		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5		0.5	0.14		0.14		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5	U	0.5	0.16	U	0.16		(µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	U	0.5	0.1	U	0.1	1	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5		0.5	0.13		0.13		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5		0.5	0.22		0.22		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5		0.5	0.11		0.11		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5	U	0.5	0.13	U	0.13 0.76		(µg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	2-Butanone 2-Chlorotoluene	0.5		5 0.5	0.13	_	0.76		(μg/L) (μg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	2-Hexanone		U	5	0.13		0.15		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5		0.5	0.14		0.14		(μg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5	U	5	0.45	U	0.45		(µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Acetone	5	U	5	1	U	0.99	5	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5		0.5	0.08		0.08		(µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5		0.5	0.19		0.19		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5		0.5	0.16		0.16		(µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	U UJv	0.5	0.19 0.25		0.19 0.25		(µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Bromomethane Carbon Disulfide	0.5		0.5	0.25		0.25		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5		0.5	0.15		0.15		(μg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5		0.5	0.12		0.12		(μg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	U	0.5	0.08	U	0.08		(µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5	U	0.5	0.13	U	0.13	1	(µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.0	U	0.5	0.18		0.18		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.28		0.5	0.06		0.06		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5		0.5			0.18		(µg/L)	
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane Dibromomethane	0.5		0.5	0.15	U	0.15 0.52		(µg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Dibromomethane Dichlorodifluoromethane	0.5		0.5	0.12	_	0.52		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.5		0.5	0.12		0.12		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5		0.5	0.17		0.17		(μg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.5		0.5	0.18		0.18		(μg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5		0.5	1		0.12		(µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5		0.5	0.15	U	0.15		(µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Naphthalene	0.5		0.5	1	J	0.32		(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5		0.5	0.16		0.16		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene p-Isopropyltoluene	0.5		0.5	0.15		0.15		(µg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene sec-Butylbenzene	0.5		0.5	0.1		0.1		(μg/L) (μg/L)	NA NA
	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Styrene Styrene	0.5		0.5	0.12		0.12		(μg/L) (μg/L)	NA NA
MW-22	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5		0.5	0.07		0.07		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	1.3		0.5	1	-	0.13		(μg/L)	7
	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5	U	0.5	0.15	U	0.15		(μg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5		0.5	0.09		0.09	1	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5	U	0.5	0.21	U	0.21	1	(µg/L)	NA
	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	1.2		0.5	1		0.18		(µg/L)	0
MW-22	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	U	0.5	0.08	U	0.08	1	$(\mu g/L)$	NA

TABLE 1

Section Sect				ROPICANA ENERGY SUPERFUND SITE								
SW-22 VOLATHE ORGANIC COMPOINDS Vigo debonate 0.5 U	WEII	ANALYTE CROUD	ANALVTE				Pocult			DI	Unite	RPD
SWA VOLATILE ORGANIC COMPOUNDS 1,1,1,2-Ternachorochane								•				NA
SWA-N VOLATHE DIGGANE COMPONINS 1,1-2 Frontedoucealment 0.5 U											40 /	NA
SWA VOLATHE GRANKI COMPOUNDS 1,1.2 Trich/torochane 0.5 U 0.5 1 U 0.55 5 5 5 5 5 5 5 5 5						0.5	1	U			40 /	NA
MW-4 VOLATILE ORGANIC COMPOUNDS .1.1-Dochloocenbane 0.5 U 0.5 1 U 0.5 5 5	MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5	U	0.5	1	U	1.1	5	(µg/L)	NA
MW-4 VOLATHE ORGANIC COMPOUNDS 1,1-Dochlotopopopopopopopopopopopopopopopopopopo	MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5	UJv	0.5			1.4	5	(µg/L)	NA
MW-4 VOLATILE ORGANIC COMPOUNDS 1,1-Dichloropropene 0,5 U 0,5 2 U 1.15 \$ \$ \$ \$ \$ \$ \$ \$ \$								_			,	NA
SW-4 VOLATILE ORGANIC COMPOUNDS 1,2-5 Trichloroptepane 0.5 U 0.5 2 U 1.5 5 (grg.L)												NA
WWW.4 VOLATHE ORGANIC COMPOUNDS 1,24-Friendshorenee			1 1									NA
SWM_4 VOLATILE ORGANIC COMPOUNDS 1,2-Dimmon_Schoroproped 0.5 U					_							NA
MW-4 VOLATILE ORGANIC COMPOUNDS 1.2-Dibromon-S-chloropropage 0.05 U 0.05 1 U 0.9 5 GgL			, ,									NA NA
SWM_4 VOLATILE ORGANIC COMPOUNDS 1_2-Dichloroschane			•		_							NA NA
WW-4 VOLATILE ORGANIC COMPOUNDS 1.2-Dichlororechane 0.5 U 0.5 1 U 0.5 5 (ug.L)											40 /	NA
MW-4 VOLATILE ORGANIC COMPOUNDS 1.2-Dichlorosponane 0.5 U 0.5 I 1 U 0.7 S (pgL) MW-4 VOLATILE ORGANIC COMPOUNDS 1.3-Dichlorosponane 0.5 U 0.5 I 1 U 0.5 S (pgL) MW-4 VOLATILE ORGANIC COMPOUNDS 1.3-Dichlorosponane 0.5 U 0.5 I 1 U 0.5 S (pgL) MW-4 VOLATILE ORGANIC COMPOUNDS 1.3-Dichlorosponane 0.5 U 0.5 I 1 U 0.5 S (pgL) MW-4 VOLATILE ORGANIC COMPOUNDS 1.3-Dichlorosponane 0.5 U 0.5 I 1 U 0.55 S (pgL) MW-4 VOLATILE ORGANIC COMPOUNDS 2.2-Dichlorosponane 0.5 U 0.5 I 1 U 0.65 S (pgL) MW-4 VOLATILE ORGANIC COMPOUNDS 2-Chronoslone 0.5 U 0.5 I 1 U 0.65 S (pgL) MW-4 VOLATILE ORGANIC COMPOUNDS 2-Chronoslone 0.5 U 0.5 I 1 U 0.65 S (pgL) MW-4 VOLATILE ORGANIC COMPOUNDS 4-Chronoslone 0.5 U 0.5 S U 1 S (pgL) MW-4 VOLATILE ORGANIC COMPOUNDS A-Methyl-2-pentamone			1									NA
WW-4 VOLATILE ORGANIC COMPOUNDS 1,2-Dichloropropage											,	NA
MW-4 VOLATILE ORGANIC COMPOUNDS 1,3-5-frineshythenzene							1	U			,	NA
MW-4	MW-4	VOLATILE ORGANIC COMPOUNDS		0.5	U	0.5	1	U	0.5			NA
MW-4 VOLATILE ORGANIC COMPOUNDS 1,4-Dichlorobenzene 0.5 U 0.5 1 U 0.55 5 5 5 5 5 5 5 5 5	MW-4	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5	U	0.5	1	U	0.65			NA
WM-4	MW-4	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5	U	0.5	1	U	1.1	5	(µg/L)	NA
MW-4 VOLATILE ORGANIC COMPOUNDS 2-Butanone												NA
MW-4 VOLATILE ORGANIC COMPOUNDS 2-Chorotoluene 0.5 U 0.5 1 U 0.65 5 (ug.L)								_			,	NA
WW-4												NA
WW-4					U						,	NA
MW-4					* *							NA
MW-4												NA NA
WW-4 VOLATILE ORGANIC COMPOUNDS Bromobenzene 0.5 U 0.5 0.41 0.4 5 (pg/L)											,	NA
MW-4								I			40 /	NA
MW-4 VOLATILE ORGANIC COMPOUNDS Bromodichloromethane 0.5 U 0.5 U 0.95 S Gg/L								U			40 /	NA
MW-4 VOLATILE ORGANIC COMPOUNDS Bromomethane 0.5 U												NA
MW-4 VOLATILE ORGANIC COMPOUNDS Carbon Disulfide 0.5 U 0.5 I U 1.2 10 (µgT.)	MW-4	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	U	0.5	1	U	0.95	5	(µg/L)	NA
WW-4 VOLATILE ORGANIC COMPOUNDS Carbon tetrachloride 0.5 U 0.5 1 U 0.75 5 (pg.L)	MW-4	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	UJv	0.5	1	U	1.3	10	(µg/L)	NA
MW-4			Carbon Disulfide					_				NA
MW-4												NA
MW-4 VOLATILE ORGANIC COMPOUNDS Chloroform 0.5 U 0.5 I U 0.65 5 (µg/L)												NA
MW-4											,	NA
MW-4					_							NA
MW-4												NA NA
MW-4											,	NA
MW-4											,	NA
MW-4												NA
MW-4 VOLATILE ORGANIC COMPOUNDS Ethylbenzene 0.5 U 0.5 1 U 0.55 5 (µg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Hexachlorobutadiene 0.5 U 0.5 1 U 0.85 5 (µg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Methyl tert-butyl ether 0.5 U 0.5 1 U 0.6 5 (µg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Methyl tert-butyl ether 0.5 U 0.5 1 U 0.6 5 (µg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Methylene chloride 0.5 U 0.5 1 U 0.7 25 (µg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Naphthalene 0.5 U 0.5 1 U 0.8 5 (µg/L) MW-4 VOLATILE ORGANIC COMPOUNDS n-Propylbenzene 0.5 U 0.5 1 U 0.7 5 (µg/L) MW-4 VOLATILE ORGANIC COMPOUNDS p-Isopropyltolucene 0.5 U 0.5							1	U*				NA
MW-4	MW-4			0.5	U	0.5			0.55	5	(µg/L)	NA
MW-4	MW-4	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	U	0.5	1	U	0.85	5	(µg/L)	NA
MW-4 VOLATILE ORGANIC COMPOUNDS Methylene chloride 0.5 U 0.5 1 U 0.75 25 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Naphthalene 0.5 U 0.5 2 U 1.6 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS n-Bropylbenzene 0.5 U 0.5 1 U 0.8 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS n-Propylbenzene 0.5 U 0.5 1 U 0.75 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS p-Isopropyltoluene 0.5 U 0.5 1 U 0.5 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS sec-Butylbenzene 0.5 U 0.5 1 U 0.6 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS tert-Butylbenzene 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Tertachloroethene 0.5 U 0.5 <td>MW-4</td> <td></td> <td>Isopropylbenzene</td> <td>0.58</td> <td></td> <td>0.5</td> <td>1</td> <td>U</td> <td></td> <td></td> <td></td> <td>NA</td>	MW-4		Isopropylbenzene	0.58		0.5	1	U				NA
MW-4 VOLATILE ORGANIC COMPOUNDS Naphthalene 0.5 U 0.5 2 U 1.6 5 (μg/L)										5	(µg/L)	NA
MW-4			•				1	U		25	(µg/L)	NA
MW-4 VOLATILE ORGANIC COMPOUNDS n-Propylbenzene 0.5 U 0.5 1 U 0.75 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS p-Isopropyltoluene 0.5 U 0.5 1 U 0.5 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS sec-Butylbenzene 0.5 U 0.5 1 U 0.6 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Styrene 0.5 U 0.5 0.3 U 0.35 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS tert-Butylbenzene 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Tertachloroethene 0.5 U 0.5 1 U 0.65 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,2-Dichloroethene 0.5 U 0.5 1 U 0.45 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,3-Dichloroethene 0.5 U 0.5											,	
MW-4 VOLATILE ORGANIC COMPOUNDS p-Isopropyltoluene 0.5 U 0.5 1 U 0.5 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS sec-Butylbenzene 0.5 U 0.5 1 U 0.6 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Styrene 0.5 U 0.5 0.35 U 0.35 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS tert-Butylbenzene 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Tetrachloroethene 0.5 U 0.5 1 U 0.65 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trans-1,2-Dichloroethene 0.5 U 0.5 1 U 0.75 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,3-Dichloroethene 0.5 U 0.5 1 U 0.45 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichloroethene 0.5 U 0.5											,	
MW-4 VOLATILE ORGANIC COMPOUNDS sec-Butylbenzene 0.5 U 0.5 1 U 0.6 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Styrene 0.5 U 0.5 0.35 U 0.35 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS tert-Butylbenzene 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Tetrachloroethene 0.5 U 0.5 1 U 0.65 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Toluene 0.5 U 0.5 1 U 0.75 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,2-Dichloroethene 0.5 U 0.5 1 U 0.45 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,3-Dichloroethene 0.5 U 0.5 1 U 0.9 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichloroethene 0.5 U 0.5 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>,</td><td></td></t<>											,	
MW-4 VOLATILE ORGANIC COMPOUNDS Styrene 0.5 U 0.5 U 0.35 U 0.35 S (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS tert-Butylbenzene 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Tetrachloroethene 0.5 U 0.5 1 U 0.65 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Toluene 0.5 U 0.5 1 U 0.75 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,2-Dichloroethene 0.5 U 0.5 0.45 U 0.45 U MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,3-Dichloropropene 0.5 UJv 0.5 1 U 0.45 S (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichloroethene 0.5 U 0.5 1 U 0.9 S (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichlorofluoromethane 0.5 U 0.5 0.4 U 0.4 U 0.4 U 0.4 S (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Vinyl chloride 0.5 UJ 0.5 0.18 U 0.55 10 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS 1,1,1-Trichloroethane 0.5 U 0.5 0.18 U 0.18 U </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>,</td> <td></td>											,	
MW-4 VOLATILE ORGANIC COMPOUNDS tert-Butylbenzene 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Tetrachloroethene 0.5 U 0.5 1 U 0.65 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Toluene 0.5 U 0.5 1 U 0.75 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,2-Dichloroethene 0.5 U 0.5 0.45 U 0.45 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,3-Dichloroethene 0.5 U 0.5 0.45 U 0.1 1.1 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichloroethene 0.5 U 0.5 1 U 0.9 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichloroethane 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS 1,1,1,2-Tetrachloroethane 0.5											,	NA NA
MW-4 VOLATILE ORGANIC COMPOUNDS Tetrachloroethene 0.5 U 0.5 1 U 0.65 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Toluene 0.5 U 0.5 1 U 0.75 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,2-Dichloroethene 0.5 U 0.5 0.45 U 0.45 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,3-Dichloropropene 0.5 UJ 0.5 1 U 0.45 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichloroethene 0.5 U 0.5 1 U 0.9 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichloroethene 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichloroethane 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS 1,1,1-Trichloroethane 0.5 U 0.5<											,	
MW-4 VOLATILE ORGANIC COMPOUNDS Toluene 0.5 U 0.5 1 U 0.75 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,2-Dichloroethene 0.5 U 0.5 0.45 U 0.45 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,3-Dichloropropene 0.5 UJV 0.5 1 U 1.1 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichloroethene 0.5 U 0.5 1 U 0.9 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichlorofluoromethane 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Vinyl chloride 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS 1,1,1,2-Tetrachloroethane 0.5 U 0.5 0.18 U 0.15 1 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS 1,1,2,2-Tetrachloroethane 0.5 0.			•									
MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,2-Dichloroethene 0.5 U 0.5 0.45 U 0.45 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,3-Dichloropropene 0.5 UJv 0.5 1 U 1.1 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichloroethene 0.5 U 0.5 1 U 0.9 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichlorofluoromethane 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Vinyl chloride 0.5 U 0.5 1 U 0.55 10 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS 1,1,1,2-Tetrachloroethane 0.5 U 0.5 0.18 U 0.15 1 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS 1,1,2-Tetrachloroethane 0.5 U 0.5 0.22 U 0.22 1 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS 1,1,2-Trichloroethane 0.5											40 /	NA
MW-4 VOLATILE ORGANIC COMPOUNDS trans-1,3-Dichloropropene 0.5 UJv 0.5 1 U 1.1 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichloroethene 0.5 U 0.5 1 U 0.9 5 (μg/L) MW-4 VOLATILE ORGANIC COMPOUNDS Trichlorofluoromethane 0.5 U 0.5 0.4 U 0.4 5 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS Vinyl chloride 0.5 UJ 0.5 1 U 0.55 10 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS 1,1,1,2-Tetrachloroethane 0.5 U 0.5 0.18 U 0.18 1 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS 1,1,2,2-Tetrachloroethane 0.5 U 0.5 0.15 U 0.22 1 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS 1,1,2-Trichloroethane 0.5 U 0.5 0.28 U 0.22 1 (μg/L) MW-9 VOLATILE ORGANIC COMPOUNDS 1,1-Dichloroethane 0.5												NA
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MW-9 VOLATILE ORGANIC COMPOUNDS 1,1-Dichloropropene 0.5 U 0.5 0.21 U 0.21 1 $(\mu g/L)$	MW-9 MW-9	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene 1,1-Dichloropropene			0.5	0.19		0.19		(μg/L) (μg/L)	

TABLE 1

RESULTS AND RELATIVE PERCENT DIFFERENCES (RPD) OF EPA AND PRP LAB SAMPLES FIELD INVESTIGATION SUMMARY REPORT, MAY 2012 R&H OIL/TROPICANA ENERGY SUPERFUND SITE

			EPA Lab Results		ulto	PRP Lab Results					
WELL	ANALYTE_GROUP	ANALYTE		A Lab Kes Qualifier	CROL	Result	Oualifier		RL	Units	RPD
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	_	0.5	0.29		0.29		(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5		0.5	0.29		0.29		(μg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trientorobenzene	0.5	_	0.5	0.14		0.14		(μg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropar	0.05	_	0.05	1	_	0.14		(μg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05		0.05	0.18		0.18		(μg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1.2-Dichlorobenzene	0.05		0.03	0.10		0.10		(μg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5	_	0.5	0.14		0.14		(μg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5		0.5	0.16	_	0.14		$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	_	0.5		U	0.1		(μg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5	_	0.5	0.13	_	0.13		$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5		0.5		U	0.22		(μg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5		0.5	0.11	_	0.11		$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5		0.5	0.13		0.13		$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2-Butanone		U	5	1	_	0.76		(μg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5		0.5	0.13	_	0.13		$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2-Hexanone		U	5		U	0.35		(μg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5		0.5	0.14		0.14		(μg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone		U	5	0.45	_	0.45		(μg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Acetone		U	5	1		0.99		(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5		0.5	0.23	J	0.08		(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5	U	0.5	0.19	U	0.19		(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5	U	0.5	0.16	U	0.16	1	(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	U	0.5	0.19	U	0.19		(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	UJv	0.5	0.25	U	0.25	2	(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5	U	0.5	0.24	U	0.24	2	(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	UJ	0.5	0.15	U	0.15		(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5	U	0.5	0.12	U	0.12	1	(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	U	0.5	0.08	U	0.08	2	(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5	U	0.5	0.38	J	0.13	1	(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5	U	0.5	0.18	U	0.18	2	(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.5	U	0.5	0.06	U	0.06	1	(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5	U	0.5	0.18	U	0.18	1	(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	U	0.5	0.15	U	0.15	1	$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	U	0.5	1		0.52	1	(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	U	0.5	0.12	U *	0.12	1	$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.91		0.5	1		0.11	1	$(\mu g/L)$	28
MW-9	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5		0.5	0.17	U	0.17	1	$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.5	U	0.5	0.18	U	0.18	1	$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5		0.5	0.12		0.12		$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5	_	0.5	0.15	_	0.15	5	$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Naphthalene	0.5		0.5	0.32		0.32	1	$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5	_	0.5	0.16		0.16		$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5		0.5	0.15		0.15		$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5		0.5	0.1		0.1		$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5		0.5	0.12		0.12		$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5	_	0.5	0.0.	U	0.07		$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	U	0.5	0.08	U	0.08		$(\mu g/L)$	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	1.1		0.5	1		0.13		(µg/L)	9
MW-9	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5		0.5	0.110	U	0.15		(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5	_	0.5	0.09	_	0.09		(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5		0.5	0.21	U	0.21		(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	1.1		0.5	1		0.18		(µg/L)	9
MW-9	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	_	0.5	0.08		0.08		(µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	UJ	0.5	0.11	U	0.11	2	(µg/L)	NA
Note:											

= Compound was found in the blank and sample

CRQL = Contract-required quantitation limit

= Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

= Reported concentration is below the CRQL

MDL = Method detection limit mg/L = Milligrams per liter

= Split samples did not have detected results in both EA and PRB data. NA

RL = Reporting limit RPD

= Relative percent difference

= Not detected at reported quantitation limit

=Micrograms per liter ıg/L

= Low biased. Actual concentration may be higher than the concentration reported

TABLE 2

MEAN RELATIVE PERCENT DIFFERENCES (RPDs) OF DETECTED RESULTS FIELD INVESTIGATION SUMMARY REPORT, MAY 2012 R&H OIL/TROPICANA ENERGY SUPERFUND SITE

ANALYTE GROUP	ANALYTE	Mean RPD
INORGANICS	Arsenic	8
INORGANICS	Barium	3
INORGANICS	Cobalt	8
INORGANICS	Copper	72
INORGANICS	Lead	27
INORGANICS	Manganese	7
INORGANICS	Nickel	18
INORGANICS	Zinc	90
POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	20
SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	15
SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	129
VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	23
VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	30
VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	12
VOLATILE ORGANIC COMPOUNDS	Benzene	10
VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	5
VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	18
VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	24
VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	26
VOLATILE ORGANIC COMPOUNDS	Naphthalene	32
VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	29
VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	4
VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	5
VOLATILE ORGANIC COMPOUNDS	Toluene	11
	Trichloroethene	3

Boldface results indicate RPD > 50%.

EA Project No.: 14342.74 September 2012

ATTACHMENT 10 DATA EVALUATION SUMMARY REPORT



Data Evaluation Summary Report

Remedial Investigation / Feasibility Study Oversight R&H Oil / Tropicana Energy Superfund Site San Antonio, Bexar County, Texas EPA Identification No. TXD 057577579

Remedial Action Contract 2 Contract: EP-W-06-004 Task Order: 0074-RSBD-06MB

Prepared for

U.S. Environmental Protection Agency Region 6 1445 Ross Avenue Dallas, Texas 75202-2733

Prepared by

EA Engineering, Science, and Technology, Inc. 405 S. Highway 121 Building C, Suite 100 Lewisville, Texas 75067 (972) 315-3922

> September 2012 Revision: 00 EA Project No. 14342.74

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LIST OF ACRONYMS AND ABBREVIATIONS

CCV Continuing calibration verification
CLP Contract Laboratory Program
CRDL Contract-required detection limit
CRQL Contract-required quantitation limit

%D Percent difference

DESR Data Evaluation Summary Report

DQO Data quality objectives

EA Engineering, Science, and Technology, Inc.

EPA U.S. Environmental Protection Agency

FS Feasibility Study

LCS Laboratory control sample

MD Matrix duplicate

MDL Method detection limit mg/L Milligram per liter μg/L Microgram per liter

PARCCS Precision, accuracy, completeness, comparability, representativeness, and

sensitivity

PBW Pastor, Behling, & Wheeler, LLC PRP Potentially responsible party

QA/QC Quality Assurance/Quality Control

RI Remedial Investigation RPD Relative percent difference

SAP Sampling and Analysis Plan SDG Sample delivery group

Site R&H Oil/Tropicana Energy Superfund Site

SOP Standard Operating Procedures

SOW Statement of Work

SVOC Semivolatile organic compounds

VOC Volatile organic compounds

1. INTRODUCTION

This document presents the Data Evaluation Summary Report (DESR) prepared by EA Engineering, Science, and Technology, Inc. (EA) for the R&H Oil / Tropicana Energy Site (site), located in San Antonio, Bexar County, Texas. This DESR documents and summarizes the analytical data collected during the Remedial Investigation (RI) and Feasibility Study (FS) oversight activities in May 2012. EA produced this DESR for the U.S. Environmental Protection Agency (EPA) Region 6 as part of Task Order No. 0074-RSBD-06MB under Remedial Action Contract No. EP-W-06-004, in accordance with the Statement of Work (SOW) issued by EPA (EPA 2011).

The purpose of the field investigation is to collect sufficient data to support RI/FS oversight for the site. The media sampled in May 2012 included ground water and air. The EPA SOW (EPA 2011) and the EPA-approved Work Plan (EA 2011a) set forth the framework and requirements for this effort.

The purpose of the DESR is presented in Section 2. A data summary compiling, tabulating, and summarizing the data collected during the May 2012 RI/FS activities is provided in Section 3. The Quality Assurance/Quality Control (QA/QC) findings are presented in Section 4. Data evaluation parameters are presented in Section 5. The data quality objectives (DQOs) evaluation and conclusions are presented in Section 6. References are provided in Section 7. Supporting materials follow the text.

2. PURPOSE

The purpose of this DESR is to summarize analytical data quality and usability as related to the project-specific DQOs presented in the Sampling and Analysis Plan (SAP) (EA 2011b). The DQO process is a series of planning steps designed to ensure that the type, quantity, and quality of environmental data used in decision-making are appropriate for the intended application. The project-specific DQOs for the RI/FS oversight process were developed and presented in the SAP. The methods and techniques required to yield analytical data of acceptable quality and quantity to support DQOs are also outlined in the SAP.

The overall QA objectives are as follows:

- Attain QC requirements for analyses specified in the SAP
- Obtain data of known quality to verify the potentially responsible party's (PRP) assessment of nature and extent of contamination and human health and ecological risks.
- Document performance of the PRP's quality program, including performance of the work and any required changes to work at the site.

In order to address the goals of the study, ground water and air were sampled as outlined in the SAP. Ground water samples were analyzed for volatile organic compounds (VOCs),

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semivolatile organic compounds (SVOCs), and total metals. Air samples were analyzed for VOCs.

3. DATA SUMMARY

This section presents a summary of the data collected during the field investigation. Media sampled included ground water and air. Analytical results are presented in Appendix A.

3.1 GROUND WATER

EA collected ground water samples during oversight of the May 2012 field effort. Split ground water samples were collected from MW-04, (MW-04 Duplicate), MW-20, MW-09, MW-21, and MW-22 for VOCs and EPA HAPSITE Field gas chromatography/mass spectrometry (GC/MS). MW-18 was sampled and analyzed for VOCs and SVOCs. MW-19 was sampled and analyzed for VOCs. Samples from MW-14, MW-16, and MW-17 were analyzed for VOCs, SVOCs, and total metals. The results of the ground water sample analysis and the corresponding PRP results are presented in Table A-1 in Appendix A.

3.2 AIR

EA collected soil vapor samples from locations SG-14, SG-19 (SG-19 Duplicate), SG-21, and SG-22 and a sub-slab vapor sample from SS-2. The soil vapor and sub-slab samples were analyzed for VOCs. The results are summarized in Table A-2 in Appendix A. Following collection of the air samples, EA determined there was a leak at the top of the summa canisters. The PRP was unable to recover air samples from these locations; therefore the EA split samples were not used for comparison.

4. QUALITY ASSURANCE/QUALITY CONTROL

This section describes the QA/QC findings for the analytical data provided by the supporting laboratories. A complete listing of analyses is presented in the project-specific SAP (EA 2011b). The project field samples were collected and sent to two types of laboratory facilities: (1) EPA Region 6 Laboratory and (2) EPA Contract Laboratories. The following sections present the QA/QC results of the project data by laboratory type.

According to the requirements of the project-specific SAP (EA 2011b), the responsibility for the validation and review of the data from the EPA laboratory was held by the EPA. EA reviewed the electronic deliverables from the EPA Region 6 Laboratory and determined they contained suitable data validation qualifiers and accompanying case narratives.

In preparing this DESR, the available data validation reports and case narratives were reviewed. The QC findings are summarized in the following sections and only address those issues that resulted in the qualification of data. Other minor findings that were deemed insignificant to data quality are discussed in individual reports included in the appendixes to this report.

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4.1 EPA REGION 6 LABORATORY DATA

The data generated by the EPA Region 6 Laboratory were reviewed in accordance with the laboratory policy. The EPA Region 6 Laboratory performed VOC analyses by method TO-15 on air samples.

The qualifiers and definitions used for the EPA Region 6 Laboratory data are presented in Table 1 (below). The deliverables included appropriate data qualifiers and accompanying data summaries. Appendix B of this DESR contains the analytical data reports and narratives for samples collected in May 2012 from the EPA Region 6 Laboratory.

The EPA Region 6 Laboratory data did not require validation by EA as specified in the project-specific SAP (EA 2011b). The laboratory reports contained narratives with general information regarding data quality. The laboratory did not reject any data, so the data were usable as reported. The issues reported in the narratives are summarized below.

• Report for samples collected in May 2012: Report 12SF105:

- Trichloroethene was qualified (B) in samples SG-22 and TB-1-Air; the concentrations in these samples were within 10 times the amount detected in the method blank.
- Acetone was qualified as estimated (J) in sample SG-19 because the sample concentration exceeded the upper calibration limit. The concentration was slightly above the limit, and no bias is expected.
- Samples SG-19 and SG-19-D were diluted due to matrix interference.
- Samples SG-14 and SG-22 arrived at the laboratory with low sample volume, as indicated by their initial pressures. These samples were diluted prior to analysis.

TABLE 1 EPA REGION 6 AND CONTRACT LABORATORY PROGRAM LABORATORY DATA VALIDATION QUALIFIERS

Qualifier	Definition									
	Data Qualifier Definitions for Organic Data Review									
ND or U	The analyte was analyzed for, but was not detected at, a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.									
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due to either the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).									
В	Blank Related - The concentration found in the sample was less than ten times the concentration found in the associated extraction, digestion, and/or analysis blank. Presence in the sample is therefore suspect.									

UJ	The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.
V	Low biased. Actual concentration may be higher than the concentration reported.
٨	High biased. Actual concentration may be lower than the concentration reported.
L	Reported concentration is below the CRQL.
M	Reported concentration should be used as a raised quantitation limit because of interferences and/or laboratory contamination.
	Data Qualifier Definitions for Inorganic Data Review
ND or U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

4.2 EPA CONTRACT LABORATORY DATA

The data generated by the EPA Contract Laboratory Program (CLP) Laboratory were reviewed in accordance with the laboratory policy. The EPA CLP Laboratory performed VOC and SVOC analyses by CLP method SOM01.2 on ground water samples.

The qualifiers and definitions used for the EPA CLP Laboratory data are presented in Table 1. The deliverables included appropriate data qualifiers and accompanying data summaries. Appendix B of this DESR contains the analytical data reports and narratives for samples collected in May 2012 from the EPA CLP Laboratory.

The EPA CLP Laboratory data did not require validation by EA as specified in the project-specific SAP (EA 2011b). The laboratory reports contained narratives with general information regarding data quality. The laboratory did not reject any data, so the data were usable as reported. The issues reported in the narratives are summarized below.

• Report for samples collected in May 2012: SDG F5MP0:

- Vinyl chloride was qualified as estimated (J) in all samples due to failed percent difference (%D) criteria in the opening continuing calibration verification (CCV).
- Carbon tetrachloride was qualified as estimated (J) in samples MW-4, MW-9, the diluted analysis of MW-19, MW-21, MW-22, and MW-4-D due to failed %D criteria in the opening CCV.
- Methylcyclohexane and 1,2,4-trimethylbenzene were qualified estimated (J) in sample MW-14 because the concentrations exceeded the upper calibration limit.

- o-Xylene was qualified estimated (J) in sample MW-18 because the concentration exceeded the upper calibration limit.
- Bromomethane was qualified as estimated and biased low (Jv) for all samples because the raw data for the associated CCVs indicated a significant loss of sensitivity for bromomethane.
- The laboratory qualified methylene chloride results because of possible laboratory contamination. Methylene chloride results less than the CRQL should be considered undetected. The data reviewer qualified these results with a (U) flag.
- The data reviewer qualified the detected methylene chloride result in sample TB-2 as undetected (U) due to possible laboratory contamination.
- The data reviewer qualified toluene and m,p-xylene results as undetected (U) in sample MW-16 because of possible field/shipping contamination.
- The data reviewer qualified toluene as undetected (U) in sample MW-17 because of possible field/shipping contamination.
- The data reviewer qualified naphthalene results as undetected (U) in sample MW-9 because of possible field/shipping contamination.
- Naphthalene in samples MW-20, MW-21, and MW-21-D were qualified as undetected (UM) due to possible field contamination.
- Detected trichloroethene, tetrachloroethene, ethylbenzene, and isopropylbenzene results in sample MW-21were qualified as estimated and biased high (J^) due to high surrogate recovery.
- One of the surrogates associated with sample MW-19 was recovered below 10 percent; the data reviewer recommended the results associated with this surrogate be taken from the diluted reanalysis.
- The following samples had one or more surrogate recoveries below the QC limits: MW-14, MW-4, MW-20, MW-21, MW-4-D, TB-2, and FB-1. The associated results were qualified as estimated and biased low (Jv).
- The tert-butylbenzene spectra submitted for sample MW-19 did not meet the relative intensity compound identification criteria. The data reviewer qualified the tert-butylbenzene identification as tentative for this sample.
- The data reviewer qualified the 1,2,4-trimethylbenzene identification in sample MW-21 as tentative due to questionable retention time.
- The raw data for one closing CCV showed the instrument had difficulty detecting 1,2-dibromo-3-chloropropane in the samples during the volatile SIM analysis. Instead of rejecting the non-detected results, the data reviewer recommended the 1,2-dibromo-3-chloropropane results from the full scan analysis be used for samples

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MW-14, MW-16, MW-18, and MW-19. The reviewer qualified the remaining volatile SIM samples as estimated and biased low (Jv).

- 1,2-Dibromoethane was qualified as estimated and biased low in sample MW-22 due to low surrogate recovery.
- 1,2-Dibromo-3-chloropropane was qualified as estimated and biased low in sample FB-2 due to low surrogate recovery.
- The data reviewer qualified the diethylphthalate and di-n-butylphthalate results in sample MW-17 as undetected (U) due to possible laboratory contamination.

• Report for samples collected in May 2012: SDG MF5MP0:

— Due to laboratory blank readings, the antimony result for sample MW-18 was considered undetected and flagged (U) by the data reviewer.

5. DATA EVALUATION PARAMETERS

The data were evaluated for acceptable quality and quantity based on the critical indicator parameters, represented by precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS). To the extent possible, EA followed EPA's data quality assessment process (EPA 2006a; 2006b). This evaluation helps determine whether limitations should be placed on the data and to verify that the type, quality, and quantity of data that are collected are appropriate for their intended use. The PARCCS parameters were reviewed for the laboratory analytical data results and are discussed in the following sections.

A well-defined QA/QC process is integral to the generation of analytical data of known and documented quality. The QC process includes those activities required during data collection to produce data of sufficient quality to support the decisions that will be made based on the data (e.g., comparison to the PRP sample data). After environmental data are collected, QA activities focus on evaluating the quality of the data in order to determine the data usability with respect to support for remedial or enforcement decisions. Table 2 presents the acceptance criteria for definitive laboratory data for chemical analyses of investigation samples only.

5.1 DATA CATEGORIES

In order to produce data suitable for decision-making, an appropriate analytical technique must be selected. The EPA Superfund program has developed two descriptive categories of analytical techniques: (1) field-based techniques, and (2) fixed-laboratory techniques. The type of data generated depends on the qualitative and quantitative DQOs developed for a project. Regardless of how the data were analyzed, they must be of adequate quality for the decision-making process for which they were collected. For this project, both types of data were collected. Both field-based and definitive analytical data may be used to support decisions made for this project.

Rigorous analytical methods (e.g., EPA CLP methods) are used to generate analyte-specific, definitive data. The definitive quality of the data is assured by: (1) using Standard Operating Procedures (SOPs) and QC processes during data collection; (2) documented control and traceability of reference standards, calibrations, and instrument performance; and (3) acceptable performance of field and laboratory QC procedures within the defined limits established for these procedures.

TABLE 2 OUALITY ASSURANCE INDICATOR CRITERIA

TABLE 2 QUALITY ASSURANCE INDICATOR CRITERIA										
			Acceptance Criteria for							
Indicator Parameter	Analytical Parameter	QC Sample	Laboratory Analysis							
Accuracy (percent	VOCs, SVOCs	MS, MSD	50 to 150 percent recovery							
recovery)		Blanks	Less than CRQL							
	Metals	MS	75 to 125 percent recovery							
		LCS	80 to 120 percent recovery							
		Blanks	Less than CRDL							
Precision (RPD)	VOCs, SVOCs	MS, MSD	30 percent RPD							
		Field duplicates and	50 percent RPD							
		split samples								
	Metals	MS, MD	20 percent RPD (aqueous)							
		MS, MD	35 percent RPD (solid)							
		Field duplicates and	50 percent RPD							
		split samples								
Sensitivity (quantitation	All analytical tests	MS, MD, MSD	Not applicable							
limits)		Field duplicates								
Completeness	The objective for data	completeness is 90 perc	ent.							
Representativeness and		e sampling network analytical methods for this site are designed to								
Bias	provide data that are representative of site conditions.									
Comparability		The use of standard published sampling and analytical methods and the use								
		sure data of known qual	ity. These data can be							
	compared to any other	data of known quality.								
NOTE:										
	ired detection limit									
	ired quantitation limit									
LCS = Laboratory co										
	1									
MS = Matrix spike										
MSD = Matrix spike										
RPD = Relative percent difference.										

The ground water and air samples collected during the sampling event were analyzed by the EPA Region 6 and CLP Laboratories.

5.2 MEASUREMENT QUALITY OBJECTIVES

Analytical results were evaluated in accordance with PARCCS parameters to document the quality of the data and to ensure that the data are of sufficient quality to meet the project objectives. Of these PARCCS parameters, precision and accuracy were evaluated quantitatively by collecting the QC check samples listed in Table 2 (above).

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The sections below describe each of the PARCCS parameters and how they were assessed within this project.

5.2.1 Precision

Precision is the degree of mutual agreement between individual measurements of the same property under similar conditions. Usually, combined field and laboratory precision is evaluated by collecting and analyzing field duplicates and then calculating the variance between the samples, typically as a relative percent difference (RPD).

RPD is calculated as follows:
$$RPD = \frac{|A - B|}{(A + B)/2} \times 100\%$$

where: A = first duplicate concentration

B = second duplicate concentration

Field sampling precision is evaluated by analyzing field duplicate samples (in this case, field duplicates of split samples). Duplicate results were evaluated for compliance with acceptance criteria for precision for each analytical method. RPD evaluations are documented in the individual data validation report for each sample delivery group (SDG) which was validated for matrix spike/matrix spike duplicate and laboratory replicate pairs. A summary of the ground water and air samples collected is presented in Appendix A. The field duplicate RPD evaluations are presented in Table A-3 of Appendix A. The SAP criterion for field duplicate precision is 50 percent RPD.

Ground Water—Field duplicates were collected from samples MW-14, MW-21, and MW-4. Out of the 230 analytes that were duplicated, 226 of the results (i.e. 98 percent) met the RPD criterion. Four of the analytes exceeded the field duplicate criterion, and are listed in Table 3. Three of these instances had a detected concentration in one of the samples, but the analyte was not detected in the other sample, resulting in an elevated RPD. In one instance, the analyte was not detected in the parent or duplicate sample, and the samples have varied reporting limits, resulting in an elevated RPD. The results listed in Table 3 are therefore are usable, but are considered estimated values.

Air—A field duplicate was collected from air sample SG-19. Out of the 61 analytes that were duplicated, 56 of the results (i.e., 91 percent) met the RPD criteria. Five of the analytes exceeded the field duplicate criteria, and are listed in Table 3. In two of the instances, the analyte was not detected in the parent or duplicate samples and the samples have varied reporting limits, resulting in high RPDs. In one instance, the analyte was detected in the parent but not in the field duplicate. The remaining two instances had detections in both the parent and duplicate samples. The results listed in Table 3 are considered estimated values. However, the PRP was unable to collect air samples for analysis; therefore the air results collected by EA were not used for comparison to PRP data.

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TABLE 3 EPA FIELD DUPLICATES WITH RPD EXCEEDING 50 PERCENT

		Parent Sample Duplicate Sample						
Sample ID	Analyte	Result	Units	Qualifier	Result	Units	Qualifier	RPD
MW-21	sec-Butylbenzene	0.27	μg/L	LJ	0.50	μg/L	U	59.7
MW-21	n-Propylbenzene	0.50	μg/L	U	2.5	μg/L		133.3
MW-14	Hexachlorobutadiene	13	μg/L	U	50	μg/L	U	117.5
MW-14	Fluorene	0.49	μg/L	LJ	1.0	μg/L	U	68.5
SG-19	Carbon disulfide	7.8	$\mu g/m^3$	U	1	μg/m ³	U	154.5
SG-19	Cyclohexane	30	$\mu g/m^3$		11	$\mu g/m^3$		92.7
SG-19	1,2-Dichloropropane	1.6	$\mu g/m^3$	U	580	$\mu g/m^3$	U	198.9
SG-19	Benzene	11	$\mu g/m^3$		1.9	μg/m ³		141.1
SG-19	Propene	1.5	μg/m ³		0.56	μg/m ³	U	91.3

NOTE:

 $\mu g/m^3 = micrograms per cubic meter$

 $\mu g/L$ = micrograms per liter

The criteria in the SAP specifies that 1 in 10 (10 percent) of split samples be submitted as field duplicates to the laboratory (EA 2011b). Field duplicate pairs were collected, analyzed, and evaluated for each matrix. The frequency of field duplicates submitted to the laboratory for analysis is provided in Table 4.

TABLE 4 FIELD DUPLICATE FREQUENCY

Matrix	Samples	Field Duplicates	Frequency (%)
Water	10	3	30
Air	5	1	20

5.2.2 Accuracy

Accuracy is the degree to which a measurement agrees with its true value and is expressed as percent recovery; acceptance criteria for each analytical methodology are stated in the SAP (EA 2011b). Accuracy is assessed by comparing MS, laboratory control samples (LCS), and surrogate recoveries to associated QC limits. Through the process of data validation and review, MS, LCS, and surrogate recoveries were evaluated for compliance with acceptance criteria for accuracy for each applicable analytical methodology.

MS and MSD samples were prepared and analyzed at a frequency of 5 percent. LCSs or blank spikes are also analyzed at a frequency of 5 percent. Surrogate standards, where available, are added to every sample analyzed for organic constituents. The results of the spiked samples are used to calculate the percent recovery for evaluating accuracy. The evaluations of percent recovery are documented in Appendix B.

Percent Recovery =
$$\frac{S - C}{T} \times 100\%$$

where: S = measured spike sample concentration

C = sample concentration

T = true or actual concentration of the spike

The objective for accuracy of field measurements is to achieve and maintain factory specifications for the field equipment. To this end, appropriate SOPs for instrument calibration were followed and calibration results were properly documented.

5.2.3 Representativeness

Representativeness is a qualitative parameter and is defined by the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or a process or environmental condition. The SAP (EA 2011b) stated representativeness requirements would be satisfied by: (1) ensuring the SAP and the PRP Field Sampling Plan are followed; (2) verifying that samples are collected in accordance with the appropriate PRP SOPs listed in their SAP (PBW 2010a), or that appropriate sampling techniques are used when PRP SOPs are not available; (3) following proper analytical procedures; and (4) not exceeding required maximum holding times.

EA verified the PRP SOPs and sampling plan were generally followed with two exceptions noted:

- (1) The PRP consultant collected only unfiltered ground water samples during this sampling event, as opposed to collecting filtered and unfiltered samples. EA's split samples were also unfiltered.
- (2) Turbidity was not stabilized for three consecutive measurements prior to sample collection from MW-18.

Further information can be found in the Daily Field Reports and Field Logbook, which are included in the Field Investigation Summary Report.

Samples were analyzed using standard laboratory analytical methods. The PRP and EA split samples were analyzed within the holding time specified by the analytical methods. Minor QC issues affecting the results are identified in the laboratory case narratives.

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5.2.4 Completeness

Completeness is defined as the percentage of measurements judged to be valid. The validity of sample results is determined through the data validation process. The rejected (R) sample results are considered to be incomplete. The data that are qualified as estimated (J) or estimated nondetected (UJ) are considered to be valid and usable. The completeness is calculated and reported for each method and analyte combination. The number of valid results divided by the number of possible individual analyte results, expressed as a percentage, determines the completeness of the data set.

The percent completeness was acceptable. All of the samples were acceptable, resulting in 100 percent completeness for the overall project.

5.2.5 Comparability

Comparability of the data is a qualitative parameter that expresses the confidence with which one data set may be compared to another. The SAP (EA 2011b) stated comparability is attained by achieving the QA objectives for sensitivity, accuracy, precision, completeness, and representativeness and would be measured by calculating the RPD between the PRP and EA split samples. If the calculated RPD is less than 50 percent, then the EA split samples and the corresponding PRP samples are considered to be within adequate agreement. The calculated RPDs are summarized in Table A-1. Due to significant differences in reporting limits between the EPA and PRP laboratories, RPDs were only calculated when a detected result was reported by both laboratories. The mean RPDs were then calculated for each analyte, which are summarized in Table A-4. When a result was detected in both the PRP sample and the corresponding EPA split sample, the mean RPD exceeded 50 percent in three analytes, which are summarized in Table 5.

TABLE 5 DETECTED ANALYTES EXCEEDING 50 PERCENT RPD CRITERION

ANALYTE GROUP	ANALYTE	Mean RPD
INORGANICS	Copper	72
INORGANICS	Zinc	90
SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	129

Copper and zinc exceeded the RPD criterion in instances where there were detections below the reporting limits in both the PRP and EPA split samples. Results reported close to the detection limit generally have higher variability and are qualified by the laboratory as estimated values. Therefore, these results tend to have a high RPD, although there is little difference between the two results. For example, copper was detected in MW-18 at a concentration of 0.0024 milligrams per liter (mg/L) in the PRP sample compared to the EPA split sample of 0.0014

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mg/L. Although there is a small difference between the two results, the calculated RPD is 53 percent due to the variability of results below the reporting limit.

Phenol results exceeded the RPD criterion in samples MW-14, MW-17, and MW-18. In each case, the EPA split samples are greater than the PRP results. The reason for the high RPDs is uncertain; however, phenol is not a key contaminant of potential concern in this investigation. The EPA results can be considered high estimates of the actual value, and the PRP results can be considered low estimates. Both the EPA split samples and PRP samples confirm that the phenol concentrations in ground water are below the Texas Commission on Environmental Quality ground water screening level of 7,300 micrograms per liter (μ g/L) identified in the PRP Quality Assurance Project Plan and the EPA tap water regional screening level of 4,500 μ g/L.

5.2.6 Sensitivity

Sensitivity is the measure of the signal from an instrument that represents an actual deflection or response above instrument noise. The analytical sensitivity is measured by the method detection limit (MDL) or instrument detection limit and reported with the necessary dilution factors, preparation factors, and dry-weight factors of an individual sample as the sample quantitation limit.

Ideally the lowest of the detection limits outlined by the laboratories would be below human health screening levels; analytically achievable quantitation limits are not always low enough to meet this goal. Exceptions to the desired detection limits were identified in the PRP's Quality Assurance Project Plan (PBW 2010b).

5.3 DETECTION AND QUANTITATION LIMITS

The analytical parameters and their quantitation limits for use on this project are determined under the EPA CLP SOW(s). The contract-required detection limit (CRDL) is the minimum concentration of an analyte that can be reliably distinguished from background noise for a specific analytical method. The quantitation limit represents the lowest concentration of an analyte that can be accurately and reproducibly quantified in a sample matrix. CRQLs are contractually specified maximum quantitation limits for specific analytical methods and sample matrices, such as soil or water, and are typically several times the MDL to allow for matrix effects.

For this project, sample results were reported as estimated values if concentrations were less than CRQLs but greater than CRDLs. The CRQL for each analyte was listed as the detection limit in the laboratory's electronic data deliverable.

6. DATA QUALITY OBJECTIVES AND CONCLUSIONS

Based on the data validation findings summarized in Section 4, the EPA split sample data were either determined to be usable or qualified as estimated.

One of the goals in the field investigation was to obtain split sample results of known quality that can support the RI/FS oversight. Based upon an overall review of the results presented within this DESR, the following issues are of importance in this evaluation.

6.1 MEDIA VARIABILITY

The media of concern were ground water and air. Field duplicates of EA split samples were collected to ensure that measurement error was reduced and to increase general confidence in the analytical results.

6.2 LABORATORY PERFORMANCE PROBLEMS

In general, the CLP laboratory performance met QC limits. Refer to Section 4 for a more detailed discussion of any laboratory performance issues.

6.3 CONCLUSIONS

The split sample analytical results for this sampling event met overall project objectives for the quantity and quality of data required to support the decision-making process of this investigation. The EPA data were acceptably comparable to the PRP data.

Data without qualifiers and data qualified as estimated are usable for purposes in supporting project objectives. The EPA split sample data were validated and determined to be usable by an independent data reviewer.

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EA Engineering, Science, and Technology, Inc.

Appendix A

Data Summary Tables and Relative Percent Difference Calculations

EA Engineering, Science, and Technology, Inc.

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results												
			EA Sample Results PRP Sample Results									
WELL	ANALYTE_GROUP	ANALYTE	Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-14	INORGANICS	Aluminum	0.2	mg/L	U	0.2	0.07	mg/L	J	0.022	0.5	NA
MW-14	INORGANICS	Arsenic	0.374	mg/L		0.001	0.33	mg/L		0.0033	0.01	13
MW-14	INORGANICS	Barium	0.443	mg/L		0.01		mg/L		0.0022	0.02	1
MW-14	INORGANICS	Chromium	0.00056	mg/L	LJ	0.002	0.0016	mg/L	U	0.0016	0.01	NA
MW-14	INORGANICS	Cobalt	0.0077	mg/L		0.001	0.0078		J	0.00063	0.01	1
MW-14	INORGANICS	Copper	0.00064	mg/L	LJ	0.002	0.0017	mg/L	J B	0.0015	0.01	91
MW-14	INORGANICS	Lead	0.0088	mg/L		0.001	0.0077	mg/L	J	0.0029	0.01	13
MW-14	INORGANICS	Manganese	1.13	mg/L		0.002	1	mg/L		0.00084	0.01	12
MW-14	INORGANICS	Mercury	4.4E-05	mg/L	LJ	0.0002	2.6E-05	mg/L	U	2.6E-05	0.0002	NA
MW-14	INORGANICS	Nickel	0.0072	mg/L		0.001	0.0061		J	0.0018	0.01	17
MW-14	INORGANICS	Selenium	0.0174	mg/L		0.005	0.0042		U	0.0042	0.04	NA
MW-14	INORGANICS	Thallium	0.001	mg/L	U	0.001	0.0078		U	0.0078	0.03	NA
MW-14	INORGANICS	Vanadium	0.005	mg/L	U	0.005	0.0017		U ^	0.0017	0.01	NA
MW-14	INORGANICS	Zinc	0.0024			0.002	0.0052		J B	0.0022	0.03	74
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene		ug/L		50		μg/L	J	3.5	74	36
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthene		ug/L	U	1		μg/L	U	4	50	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthylene			U	1		μg/L	U	3	50	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Anthracene		ug/L	U	1		μg/L	U	2.5	50	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)anthracene			U	1		μg/L	U	4	99	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)pyrene		ug/L	U	1		μg/L	U	4	74	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(b)fluoranthene		ug/L	U	1		μg/L	U	3.5	99	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(g,h,I)perylene		ug/L	U	1		μg/L	U	4	120	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(k)fluoranthene		ug/L	U	1		μg/L	U	4.5	99	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Chrysene		ug/L	U	1		μg/L	U	4	74	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Dibenzo(a,h)anthracene			U	1		μg/L	U	4	120	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Fluoranthene		ug/L	U	1		μg/L	U	3.5	120	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	0.49		LJ	1		μg/L	U	3.5	74	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene			U	1		μg/L	U	3.5	99	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene			U	1		μg/L	U	3	74	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene			U	1		μg/L	U	5.4	99	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol		ug/L	U	50		μg/L	U	12	99	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol			U	50		μg/L	U	8.9	99	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol		ug/L		50		μg/L	U	7.4	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	620			250		μg/L		15	120	3
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol		ug/L	U	100		μg/L	U	19	250	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene		ug/L		50		μg/L	U	6.4	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene		ug/L		50		μg/L	U	4	50	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene		ug/L		50		μg/L μg/L	U	4	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol			U	50		<u>μg/L</u> μg/L	U	6.4	99	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline		ug/L		100		<u>μg/L</u> μg/L	U	9.4	120	NA
												NA
		-		0								NA
		,										NA
MW-14 MW-14 MW-14	SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol 3,3'-Dichlorobenzidine 3-Nitroaniline	50 j		U U	50 50 100	11 9	μg/L μg/L μg/L	U U U	11 8.9 7.9		50 500 120

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Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results													
	EA Sample Results						PRP Sample Results						
WELL	ANALYTE_GROUP	ANALYTE			Qualifier		Result		Qualifier	MDL	RL	RPD	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	100	μg/L	U	100	41	μg/L	U	41	120	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether			U	50		μg/L	U	5	74	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol		μg/L	U	50		μg/L	U	8.4	50	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline		μg/L	U	50		μg/L	U	10	50	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether			U	50		μg/L	U	5	74	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline			U	100		μg/L	U	12	120	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol			U	100		μg/L	U	28	120	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline			U	100		μg/L	U	4	74	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane		μg/L	U	50		μg/L	U	6.4	74	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether		μg/L	U	50		μg/L	U	7.4	74	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate		μg/L	U	50		μg/L	U	18	120	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate		μg/L	U	50		μg/L	U	5.9	120	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran		μg/L	U	50		μg/L	U	4	74	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	50	μg/L	U	50		μg/L	U	74	120	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate		μg/L	U	50		μg/L	U	3.5	120	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate		μg/L	U	50		μg/L	U	5.4	120	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate		μg/L	U	50		μg/L	U	7.9	250	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene		μg/L	U	50		μg/L	U	5.4	74	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene		μg/L	U	50		μg/L	U	6.4	74	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane		μg/L	U	50		μg/L	U	5	99	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone		μg/L	U	50		μg/L	U	5.4	74	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene		μg/L	U	50		μg/L	U	5.4	74	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine		μg/L	U	50		μg/L	U	5	120	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol			U	2		μg/L	U	30	120	NA	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	1200	μg/L		250		μg/L	J	2	74	192	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	μg/L	U	13		μg/L	U	36	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13	μg/L	U	13			U	30	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13	μg/L	U	13		μg/L	U	44	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane		μg/L		13	56	μg/L	U	56	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13	μg/L	U	13	22	μg/L	U	22	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene		μg/L		13		μg/L	U	38	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13	μg/L	U	13		μg/L	U	42	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13	μg/L	U	13	58	μg/L	U	58	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13	μg/L	U	13	62	μg/L	U	62	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	1000	μg/L	J	13	1100	μg/L		28	200	10	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	13	μg/L	U	13	160	μg/L	U *	160	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3	μg/L	U	1.3	36	μg/L	U	36	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13	μg/L	U	13	20	μg/L	U	20	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13	μg/L	U	13	28	μg/L	U	28	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	μg/L	U	13	32	μg/L	U	32	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene		μg/L		13	440	μg/L		20	200	10	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13	μg/L	U	13	26	μg/L	U	26	200	NA	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13	μg/L	U	13		μg/L	U	44	200	NA	

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Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results											
				ample Results PRP Sample Results							
WELL	ANALYTE_GROUP	ANALYTE	Result U	nits Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-14	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13 μg	/L U	13	22	μg/L	U	22	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane		z/L U	13		μg/L	U	26	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130 μg		130		μg/L	U	150	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene		g/L U	13		μg/L	U	26	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	190 μg		130		μg/L	U	70	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene		z/L U	13		μg/L	U	28	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130 μg		130		μg/L	U	90	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Acetone		z/L U	130		μg/L	U	200	1000	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Benzene	26000 µg		1300	31000			80	1000	18
MW-14	VOLATILE ORGANIC COMPOUNDS	Bromobenzene		y/L U	13		μg/L	U	38	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13 μg		13		μg/L	U	32	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Bromoform	13 μg		13		μg/L	U	38	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13 μg		13		μg/L	U	50	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13 μg	/	13		μg/L	U	48	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13 μg		13		μg/L	U	30	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene		y/L U	13		μg/L	U	24	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Chloroethane		y/L U	13		μg/L	U	16	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Chloroform	13 μg		13		μg/L	U	26	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13 μg		13		μg/L	U *	36	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene		z/L UJv	13		μg/L	U	12	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene		g/L U	13		μg/L	U	36	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane		g/L U	13		μg/L	U	30	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Dibromomethane		z/L U	13		μg/L	U	100	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane		g/L U	13		μg/L	U *	24	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	1100 µg		1300		μg/L		22	200	24
MW-14	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene		z/L U	13		μg/L	U	34	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	75 µg		13	81	μg/L	J	36	200	8
MW-14	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13 μg	z/L U	13		μg/L	U	24	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Methylene chloride		z/L U	13		μg/L	U	30	1000	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Naphthalene	240 μg		13		μg/L		64	200	37
MW-14	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene		z/L U	13		μg/L	U	32	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	94 με		13		μg/L	J	30	200	16
MW-14	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene		z/L U	13		μg/L	U	20	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene		z/L U	13		μg/L	U	24	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Styrene		z/L U	13		μg/L	J	14	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene		z/L U	13		μg/L	U	16	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene		z/L U	13		μg/L	U	26	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Toluene	24000 μg		1300	28000			150	1000	15
MW-14	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene		z/L UJv	13		μg/L	U	18	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene		y/L U	13		μg/L	U	42	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Trichloroethene		z/L U	13		μg/L	U	36	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane		y/L U	13		μg/L	U	16	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride		z/L UJv	13		μg/L	U	22	400	NA

NONGANICS														
May-16 NORGANICS				EA	A Sar	nple Resul	ts		PRP	Sample Re	esults			
MW-16 INGRANICS	WELL	ANALYTE_GROUP	ANALYTE	Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD	
MW-16 INGRANICS	MW-16	INORGANICS	Aluminum	0.2	ug/L	U	0.2	0.06	μg/L	J	0.022	0.5	NA	
MW-16 INGRGANICS Barium 0.0005 Ipg.1 U 0.002 0.0016 Ipg.1 U 0.0016 O.0018 Ipg.1 U O.0018 Ipg.1 Ipg.1 Ipg.1 O.0018 Ipg.1 Ipg.1 Ipg.1 O.0018 Ipg.1 Ipg.1 Ipg.1 Ipg.1 O.0018 Ipg.1	MW-16	INORGANICS	Arsenic				0.001				0.0033	0.01	16	
MW-16 NORGANICS Cobolt 0.0001 ggL 0.000 0.0009 ggL 0.0000 0.0009	MW-16	INORGANICS	Barium				0.01				0.0022	0.02	3	
NORGANICS	MW-16	INORGANICS	Chromium			LJ	0.002			U	0.0016	0.01	NA	
NORGANICS	MW-16	INORGANICS	Cobalt				0.001			J	0.00063	0.01	29	
MW-16 NORGANICS Lead	MW-16	INORGANICS	Copper			U	0.002			U	0.0015	0.01	NA	
MW-16 INORGANICS Manganese	MW-16	INORGANICS	Lead				0.001			U	0.0029	0.01	NA	
MW-16 NORGANICS Mercury	MW-16	INORGANICS	Manganese				0.002				0.00084	0.01	13	
MW-16 NORGANICS Nickel 0.0031 µgL 0.001 0.0023 µgL U 0.004 0.004 NA	MW-16	INORGANICS	Č			LJ	0.0002			U	2.6E-05	0.0002	NA	
MW-16 NORGANICS Selenium 0.000 µgL U 0.005 0.0042 µgL U 0.0042 0.04 NA MW-16 NORGANICS Thallium 0.001 µgL U 0.001 0.0078 µgL U 0.0071 0.01 NA MW-16 NORGANICS Vanadium 0.001 µgL U 0.005 0.0017 µgL U 0.0017 0.01 NA MW-16 NORGANICS Vanadium 0.001 µgL U 0.005 0.0017 µgL U 0.0017 0.01 NA MW-16 NORGANICS Vanadium 0.001 µgL U 0.002 0.037 µgL JB 0.0022 0.03 96 MW-16 NORGANICS MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Acenaphthylene 2.7 µgL 2 3 µgL U 0.009 0.99 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Acenaphtylene 2 µgL U 2 0.059 µgL U 0.059 0.99 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Acenaphtylene 2 µgL U 2 0.059 µgL U 0.055 0.99 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzolajamtracene 2 µgL U 2 0.059 µgL U 0.055 0.99 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzolajamtracene 2 µgL U 2 0.059 µgL U 0.059 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzolajamtracene 2 µgL U 2 0.059 µgL U 0.059 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzolajamtracene 2 µgL U 2 0.059 µgL U 0.059 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzolajamtracene 2 µgL U 2 0.059 µgL U 0.059 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzolajamtracene 2 µgL U 2 0.059 µgL U 0.059 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzolajamtracene 2 µgL U 2 0.059 µgL U 0.059 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzolajamtracene 2 µgL U 2 0.059 µgL U 0.059 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzolajamtracene 2 µgL U 2 0.059 µgL U 0.059 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzolajamtracene 2 µgL U 2 0.059 µgL U 0.059 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCAR	MW-16	INORGANICS	•		_		0.001			J	0.0018	0.01	30	
MW-16 NORGANICS	MW-16	INORGANICS	Selenium				0.005			U	0.0042	0.04	NA	
WW-16 NORGANICS	MW-16	INORGANICS	Thallium			U	0.001			U	0.0078	0.03	NA	
MW-16 NORGANICS	MW-16		Vanadium							U^	0.0017	0.01		
MW-16 POLYCYCLIC AROMATIC HYDROCARBONS 2-Methylnaphthalene 2,7 μg/L 2 3 μg/L 0.069 1.5 0.069 MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Acenaphthylene 2 μg/L U 2 0.079 μg/L U 0.079 0.99 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Acenaphthylene 2 μg/L U 2 0.059 μg/L U 0.059 0.99 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Acenaphthylene 2 μg/L U 2 0.059 μg/L U 0.059 0.99 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(a)phrtnacene 2 μg/L U 2 0.079 μg/L U 0.079 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(a)phrene 2 μg/L U 2 0.079 μg/L U 0.079 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(a)phrene 2 μg/L U 2 0.079 μg/L U 0.079 2.5 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(b)fluoranthene 2 μg/L U 2 0.079 μg/L U 0.069 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(b)fluoranthene 2 μg/L U 2 0.079 μg/L U 0.069 2 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(b)fluoranthene 2 μg/L U 2 0.079 μg/L U 0.079 2.5 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Dibenzo(a,h)anthracene 2 μg/L U 2 0.079 μg/L U 0.079 1.5 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Dibenzo(a,h)anthracene 2 μg/L U 2 0.079 μg/L U 0.079 1.5 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Dibenzo(a,h)anthracene 2 μg/L U 2 0.069 μg/L U 0.069 2.5 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Dibenzo(a,h)anthracene 2 μg/L U 2 0.069 μg/L U 0.069 2.5 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Indenot(1,2,3-cd)pyrene 2 μg/L U 2 0.069 μg/L U 0.069 2.5 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Indenot(1,2,3-cd)pyrene 2 μg/L U 2 0.069 μg/L U 0.069 2.5 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Indenot(1,2,3-cd)pyrene 2 μg/L U 2 0.069 μg/L U 0.069 2.5 NA MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Inden	MW-16									J B		0.03	96	
MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Acenaphthylene 2 μg/L U 2 0.079 μg/L U 0.079 0.99 NA	MW-16	POLYCYCLIC AROMATIC HYDROCARBONS					2				0.069	1.5	0	
MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Acenaphthylene 2 μg/L U 2 0.059 μg/L U 0.059 0.99 NA	MW-16		V 1			U	2			U		0.99	NA	
MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(a)anthracene 2 μg/L U 2 0.05 μg/L U 0.05 0.99 NA	MW-16		1				2			U	0.059	0.99	NA	
MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(a)anthracene 2 μg/L U 2 0.079 μg/L U 0.079 2 NA	MW-16		1 ,			U	2			U				
WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(a)pyrene 2 μg/L U 2 0.079 μg/L U 0.079 1.5 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(g), Diprylene 2 μg/L U 2 0.069 μg/L U 0.069 2 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(g), Diprylene 2 μg/L U 2 0.079 μg/L U 0.079 2.5 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(g), Diprylene 2 μg/L U 2 0.079 μg/L U 0.089 2 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(g), Diprylene 2 μg/L U 2 0.089 μg/L U 0.079 2.5 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Dibenzo(a, h) anthracene 2 μg/L U 2 0.079 μg/L U 0.079 1.5 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Dibenzo(a, h) anthracene 2 μg/L U 2 0.069 μg/L U 0.079 2.5 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Horanathene 2 μg/L U 2 0.069 μg/L U 0.069 2.5 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Indeno(1,2,3-cd)pyrene 2 μg/L U 2 0.069 μg/L U 0.069 1.5 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Indeno(1,2,3-cd)pyrene 2 μg/L U 2 0.069 μg/L U 0.069 1.5 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Indeno(1,2,3-cd)pyrene 2 μg/L U 2 0.069 μg/L U 0.069 1.5 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Indeno(1,2,3-cd)pyrene 2 μg/L U 2 0.069 μg/L U 0.069 1.5 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Indeno(1,2,3-cd)pyrene 2 μg/L U 2 0.059 μg/L U 0.069 1.5 NA WW-16 POLYCYCLIC AROMATIC HYDROCARBONS Indeno(1,2,3-cd)pyrene 2 μg/L U 2 0.059 μg/L U 0.059 1.5 NA WW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2,4-5-Trichlorophenol 100 μg/L U 100 0.18 μg/L U 0.11 2 NA WW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2,4-Dimitophenol 100 μg/L U 100 0.18 μg/L U 0.13 1.5 NA WW-16 SEMIVOLATILE ORGANIC COMPOUNDS 2,4-Dimitophenol 100 μg/L U 100	MW-16				_	U	2			 				
MW-16 POLYCYCLIC AROMATIC HYDROCARBONS Benzo(b)fluoranthene 2 μg/L U 2 0.069 μg/L U 0.069 2 NA	MW-16		` '		0		2					1.5		
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MW-16 SEMIVOLATILE ORGANIC COMPOUNDS 3,3'-Dichlorobenzidine 100 µg/L U 100 0.18 µg/L U 0.18 9.9 NA														
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	MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline				200			U	0.16		NA	

	Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results EA Sample Results PRP Sample Results											
			EA S	Samj	ple Resul	ts		PRP	Sample Re	esults		
WELL	ANALYTE_GROUP	ANALYTE	Result Uni	its (Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	200 μg/I	LU	U	200	1	μg/L	U	0.82	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether	100 μg/I		U	100	0.099		U	0.099	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol	100 μg/I			100	0.17		U	0.17	0.99	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline	100 μg/I		U	100	0.21		U	0.21	0.99	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	100 μg/I		U	100	0.099		U	0.099	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	200 μg/I		U	200	0.25		U	0.25	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	200 μg/I		U	200		μg/L	U	0.55	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	200 μg/I		U	200	0.079	μg/L	U	0.079	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	100 μg/I		U	100	0.13		U	0.13	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether	100 μg/I	LU	U	100	0.15	μg/L	U	0.15	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate	100 μg/I		U	100	0.37	μg/L	U	0.37	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	100 μg/I		U	100	0.12		U	0.12	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	100 μg/I		U	100	0.079		U	0.079	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	100 μg/I		U	100	2	μg/L	U	1.5	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate	100 μg/I		U	100	0.069	μg/L	U	0.069	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate	100 μg/I		U	100	0.11		U	0.11	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate	100 μg/I		U	100	0.16		U	0.16	5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene	100 μg/I		U	100	0.11		U	0.11	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	100 μg/I		U	100	0.13		U	0.13	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	100 μg/I		U	100	0.099		U	0.099	2	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	100 μg/I		U	100	0.11		U	0.11	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	100 μg/I		U	100	0.11		U	0.11	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	100 μg/I		U	100	0.099		U	0.099	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol	4 μg/I		U	4		μg/L	U	0.6	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	100 μg/I		U	100	0.04		U	0.04	1.5	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13 μg/I		U	13	0.18		U	0.18	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13 μg/I		U	13	0.15		U	0.15	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13 μg/I	LU	U	13	0.22	μg/L	U	0.22	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13 μg/I			13	0.28		U	0.28	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13 μg/I			13	0.11		U	0.11	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13 μg/I			13	0.19		U	0.19	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13 μg/I			13	0.21		U	0.21	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13 μg/I			13	0.29	μg/L	U	0.29	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13 μg/I			13	0.31		U	0.31	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	3.6 µg/I			13		μg/L		0.14	1	53
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	13 μg/I		U	13		μg/L	U	0.81	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3 μg/I			1.3	0.18	μg/L	U	0.18	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13 μg/I			13	0.1	μg/L	U	0.1	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13 µg/I			13	0.14		U	0.14	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13 µg/I			13	0.16		U	0.16	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	13 μg/I			13		μg/L		0.1	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13 µg/I			13	0.13		U	0.13	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13 µg/I			13	0.22		U	0.22	1	NA

	Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results EA Sample Results PRP Sample Results												
								PRP		esults			
WELL	ANALYTE_GROUP	ANALYTE	Result U	nits	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD	
MW-16	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13 µg	/L	U	13	0.11	μg/L	U	0.11	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13 µg	/L	U	13		μg/L	U	0.13	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130 µg	/L	U	130	1	μg/L	U	0.76	2	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13 µg	/L	U	13	0.13	μg/L	U	0.13	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130 µg	/L	U	130	0.35	μg/L	U	0.35	2	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13 µg	/L	U	13	0.14	μg/L	U	0.14	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130 µg	/L	U	130	0.45	μg/L	U	0.45	2	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Acetone	130 µg	/L	U	130	1	μg/L	U	0.99	5	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Benzene	1800 µg	/L		130	2100	μg/L		8	100	15	
MW-16	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13 µg	/L	U	13	0.19	μg/L	U	0.19	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13 µg	/L	U	13	0.16	μg/L	U	0.16	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Bromoform	13 µg	/L	U	13	0.19	μg/L	U	0.19	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13 µg			13		μg/L	U	0.25	2	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13 µg			13		μg/L	U	0.24	2	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13 µg			13		μg/L	U	0.15	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13 µg			13		μg/L	U	0.12	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13 µg			13		μg/L	U	0.08	2	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Chloroform	13 µg			13		μg/L		0.13	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13 µg			13		μg/L	U	0.18	2	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13 µg			13		μg/L	U	0.06	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13 µg			13		μg/L	U	0.18	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13 µg			13		μg/L	U	0.15	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13 µg			13		μg/L	U	0.52	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13 µg			13		μg/L	U *	0.12	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	2.9 µg			13		μg/L		0.11	1	23	
MW-16	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13 µg			13		μg/L	U	0.17	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	14 µg			13		μg/L		0.18	1	44	
MW-16	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13 µg	/L	U	13	1	μg/L	J	0.12	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13 µg			13		μg/L	U	0.15	5	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Naphthalene	17 µg			13		μg/L		0.32	1	6	
MW-16	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13 µg		U	13		μg/L		0.16	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	17 µg			13		μg/L		0.15	1	34	
MW-16	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13 µg		U	13		μg/L	J	0.1	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13 µg			13		μg/L		0.12	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Styrene	13 µg			13	0.078		J	0.07	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13 µg			13		μg/L	J	0.08	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13 µg	/L	U	13		μg/L	U	0.13	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Toluene	13 µg			13		μg/L		0.15	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13 µg			13		μg/L	U	0.09	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13 µg			13		μg/L	U	0.21	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13 µg			13		μg/L	U	0.18	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13 µg			13		μg/L	U	0.08	1	NA	
MW-16	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13 μg			13		μg/L	U	0.11	2	NA	

-	Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results EA Sample Results PRP Sample Results											
			EA Sa	mple Resul	lts		PRP	Sample Re	esults			
WELL	ANALYTE_GROUP	ANALYTE	Result Unit	s Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD	
MW-17	INORGANICS	Aluminum	0.2 μg/L	U	0.2	0.059	μg/L	J	0.022	0.5	NA	
MW-17	INORGANICS	Arsenic	0.0271 µg/L		0.001	0.026			0.0033	0.01	4	
MW-17	INORGANICS	Barium	0.114 µg/L		0.01		μg/L		0.0022	0.02	5	
MW-17	INORGANICS	Chromium	0.002 μg/L		0.002	0.0016		U	0.0016	0.01	NA	
MW-17	INORGANICS	Cobalt	0.0013 μg/L		0.001	0.0013		J	0.00063	0.01	0	
MW-17	INORGANICS	Copper	0.002 μg/L	U	0.002	0.0015	μg/L	U	0.0015	0.01	NA	
MW-17	INORGANICS	Lead	0.00027 μg/L	LJ	0.001	0.0029	μg/L	U	0.0029	0.01	NA	
MW-17	INORGANICS	Manganese	0.496 μg/L		0.001		μg/L		0.00084	0.01	1	
MW-17	INORGANICS	Mercury	0.0001 µg/L		0.0002	2.6E-05		U	2.6E-05	0.0002	NA	
MW-17	INORGANICS	Nickel	0.0015 μg/L		0.001	0.0018	μg/L	U	0.0018	0.01	NA	
MW-17	INORGANICS	Selenium	0.0012 µg/L		0.005	0.0042		U	0.0042	0.04	NA	
MW-17	INORGANICS	Thallium	0.001 µg/L	U	0.001	0.0078		U	0.0078	0.03	NA	
MW-17	INORGANICS	Vanadium	0.005 µg/L	_	0.005	0.0017		U ^	0.0017	0.01	NA	
MW-17	INORGANICS	Zinc	0.0008 µg/L	_	0.002	0.0028		J B	0.0022	0.03	111	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	18 μg/L		5		μg/L		0.7	15	20	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthene	0.23 μg/L		0.1		μg/L	U	0.8	10	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthylene	0.1 µg/L		0.1		μg/L	U	0.6	10	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Anthracene	0.1 μg/L		0.1		μg/L	U	0.5	10	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)anthracene	0.1 μg/L		0.1		μg/L	U	0.8	20	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)pyrene	0.1 μg/L		0.1		μg/L	U	0.8	15	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(b)fluoranthene	0.1 µg/L		0.1		μg/L	U	0.7	20	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(g,h,I)perylene	0.1 μg/L		0.1		μg/L	U	0.8	25	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(k)fluoranthene	0.1 µg/L		0.1		μg/L	U	0.9	20	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Chrysene	0.1 μg/L		0.1		μg/L	U	0.8	15	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Dibenzo(a,h)anthracene	0.1 μg/L		0.1		μg/L	U	0.8	25	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Fluoranthene	0.1 μg/L		0.1		μg/L	U	0.7	25	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	0.33 μg/L		0.1		μg/L	U	0.7	15	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene	0.1 μg/L	U	0.1	1	μg/L	U	0.7	20	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene	0.13 μg/L		0.1		μg/L	U	0.6	15	NA	
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene	0.1 μg/L		0.1		μg/L	U	1.1	20	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol	5 μg/L		5		μg/L	U	2.5	20	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol	5 μg/L		5		μg/L	U	1.8	20	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol	5 μg/L	U	5		μg/L	U	1.5	25	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	5 μg/L		5		μg/L	U	3.1	25	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	10 μg/L		10		μg/L	U	3.9	50	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene	5 μg/L		5		μg/L	U	1.3	15	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	5 μg/L		5		μg/L	U	0.8	10	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	5 μg/L		5		μg/L	U	0.8	15	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol	5 μg/L	U	5		μg/L	U	1.3	20	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline	10 μg/L		10		μg/L	U	1.9	25	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol	5 μg/L		5		μg/L	U	2.2	10	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine	5 μg/L		5		μg/L	U	1.8	100	NA	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline	10 μg/L		10		μg/L	U	1.6	25	NA	

	Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results										
			EA Sa	mple Resul	ts		PRP	Sample Re	esults		
WELL	ANALYTE_GROUP	ANALYTE	Result Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	10 μg/L	U	10	8	μg/L	U	8.3	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether	5 μg/L	U	5		μg/L	U	1	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol	5 μg/L		5	2	μg/L	U	1.7	10	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline	5 μg/L		5		μg/L	U	2.1	10	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	5 μg/L		5	1	μg/L	U	1	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	10 μg/L		10		μg/L	U	2.5	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	10 μg/L	U	10	6	μg/L	U	5.6	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	10 μg/L	U	10		μg/L	U	0.8	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	5 μg/L		5		μg/L	U	1.3	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether	5 μg/L		5	2	μg/L	U	1.5	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate	2 μg/L		5		μg/L	U	3.7	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	5 μg/L		5		μg/L	U	1.2	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	5 μg/L		5		μg/L	U	0.8	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	5 μg/L		5		μg/L	U	15	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate			5		μg/L	U	0.7	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate		_	5		μg/L	U	1.1	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate			5		μg/L	U	1.6	50	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene	5 μg/L		5		μg/L	U	1.1	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	5 μg/L	U	5		μg/L	U	1.3	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	5 μg/L	U	5		μg/L	U	1	20	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	5 μg/L	U	5		μg/L	U	1.1	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	5 μg/L	U	5		μg/L	U	1.1	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	5 μg/L		5		μg/L	U	1	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol			0.2		μg/L	U	6.1	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	7.2 µg/L		5		μg/L	J	0.4	15	97
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13 μg/L	U	13		μg/L	U	9	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13 μg/L	U	13		μg/L	U	7.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13 μg/L		13		μg/L	U	11	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13 µg/L		13		μg/L	U	14	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13 μg/L		13		μg/L	U	5.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13 μg/L		13		μg/L	U	9.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13 μg/L		13		μg/L	U	11	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13 μg/L		13		μg/L	U	15	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13 μg/L		13		μg/L	U	16	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	240 μg/L		13		μg/L		7	50	19
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05 µg/L		0.05		μg/L	U *	41	50	200
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05 μg/L		0.05		μg/L	U	9	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13 μg/L		13		μg/L	U	5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13 μg/L		13		μg/L	U	7	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13 μg/L		13		μg/L	U	8	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	84 μg/L		13		μg/L		5	50	15
MW-17	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13 μg/L		13		μg/L	U	6.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13 μg/L		13		μg/L	U	11	50	NA

	Table A-1 Ground	d Water Split Sample D	ata and Correspoi	nding PRI	Sampl	e Resu	lts			
			EA Sample Re	esults	•	PRP	Sample Re	esults		
WELL	ANALYTE_GROUP	ANALYTE	Result Units Qualif	ier CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-17	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13 μg/L U	13	6	μg/L	U	5.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13 μg/L U	13		μg/L	U	6.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130 μg/L U	130		μg/L	U	38	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13 μg/L U	13		μg/L	U	6.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130 μg/L U	130		μg/L	U	18	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13 μg/L U	13		μg/L	U	7	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130 μg/L U	130		μg/L	U	23	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Acetone	130 μg/L U	130		μg/L	U	50	250	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Benzene	2500 μg/L	130	2500			16	200	0
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13 μg/L U	13		μg/L	U	9.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13 μg/L U	13		μg/L	U	8	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromoform	13 μg/L U	13		μg/L	U	9.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13 μg/L UJv	13		μg/L	U	13	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13 μg/L U	13		μg/L	U	12	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13 μg/L U	13		μg/L	U	7.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13 μg/L U	13		μg/L	U	6	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13 μg/L U	13		μg/L	U	4	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Chloroform	13 μg/L U	13		μg/L	J	6.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13 μg/L U	13		μg/L	U *	9	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13 μg/L U	13		μg/L	U	3	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13 μg/L U	13		μg/L	U	9	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13 μg/L U	13		μg/L	U	7.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13 μg/L U	13		μg/L	U	26	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13 μg/L U	13		μg/L	U *	6	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	320 µg/L	13		μg/L		5.5	50	6
MW-17	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13 μg/L U	13		μg/L	U	8.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	16 μg/L	13		μg/L	J	9	50	32
MW-17	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13 μg/L U	13		μg/L	U	6	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13 μg/L U	13		μg/L	U	7.5	250	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Naphthalene	76 μg/L	13		μg/L		16	50	66
MW-17	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13 μg/L U	13		μg/L	U	8	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	27 μg/L	13		μg/L	J	7.5	50	41
MW-17	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13 μg/L U	13		μg/L	U	5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13 μg/L U	13		μg/L	U	6	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Styrene	13 μg/L U	13		μg/L	U	3.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13 μg/L U	13		μg/L	U	4	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13 μg/L U	13		μg/L	U	6.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Toluene	13 μg/L U	13		μg/L	J	7.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13 μg/L U	13		μg/L	U	4.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13 μg/L U	13		μg/L	U	11	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13 μg/L U	13		μg/L	U	9	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13 μg/L U	13		μg/L	U	4	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13 μg/L UJ	13		μg/L	U	5.5	100	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results EA Sample Results PRP Sample Results											
			EA S	ample Resul	lts		PRP	Sample Re	esults		
WELL	ANALYTE_GROUP	ANALYTE	Result Uni	ts Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-18	INORGANICS	Aluminum	0.2 μg/L	. U	0.2	0.041	μg/L	J	0.022	0.5	NA
MW-18	INORGANICS	Arsenic	0.148 μg/L	_	0.001	0.15	μg/L		0.0033	0.01	1
MW-18	INORGANICS	Barium	0.381 μg/L	_	0.01	0.4	μg/L		0.0022	0.02	5
MW-18	INORGANICS	Chromium	0.00055 μg/L	LJ	0.002	0.0016	μg/L	U	0.0016	0.01	NA
MW-18	INORGANICS	Cobalt	0.0028 μg/L		0.001	0.0029	μg/L	J	0.00063	0.01	4
MW-18	INORGANICS	Copper	0.0014 μg/L	LJ	0.002	0.0024	μg/L	J B	0.0015	0.01	53
MW-18	INORGANICS	Lead	0.005 μg/L	4	0.001	0.0033	μg/L	J	0.0029	0.01	41
MW-18	INORGANICS	Manganese	0.93 μg/L	4	0.001	1	μg/L		0.00084	0.01	0
MW-18	INORGANICS	Mercury	3.6E-05 μg/L	LJ	0.0002	2.6E-05	μg/L	U	2.6E-05	0.0002	NA
MW-18	INORGANICS	Nickel	0.0051 µg/L	_	0.001	0.0047	μg/L	J	0.0018	0.01	8
MW-18	INORGANICS	Selenium	0.0128 μg/L	_	0.005	0.0042	μg/L	U	0.0042	0.04	NA
MW-18	INORGANICS	Thallium	0.001 µg/L	. U	0.001	0.0078	μg/L	U	0.0078	0.03	NA
MW-18	INORGANICS	Vanadium	0.005 μg/L	. U	0.005	0.0017		U^	0.0017	0.01	NA
MW-18	INORGANICS	Zinc	0.0015 μg/L	L LJ	0.002	0.0034	μg/L	J B	0.0022	0.03	78
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	51 μg/L	_	50		μg/L		0.69	15	23
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthene		. U	1		μg/L	U	0.79	9.9	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthylene	1 μg/L		1		μg/L	U	0.59	9.9	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Anthracene	1 μg/L		1	0.49		U	0.49	9.9	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)anthracene	1 μg/L		1		μg/L	U	0.79	20	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)pyrene		. U	1		μg/L	U	0.79	15	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(b)fluoranthene	1 μg/L		1		μg/L	U	0.69	20	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(g,h,I)perylene		. U	1		μg/L	U	0.79	25	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(k)fluoranthene	1 μg/L		1		μg/L	U	0.89	20	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Chrysene	1 μg/L		1		μg/L	U	0.79	15	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Dibenzo(a,h)anthracene	1 μg/L		1		μg/L	U	0.79	25	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Fluoranthene		J U	1		μg/L	U	0.69	25	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	1 μg/L		1		μg/L	U	0.69	15	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene	1 μg/L		1	1	μg/L	U	0.69	20	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene	1 μg/L		1		μg/L	U	0.59	15	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene	1 μg/L		1		μg/L	U	1.1	20	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol	50 μg/L		50		μg/L	U	2.5	20	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol	50 μg/L		50		μg/L	U	1.8	20	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol	50 μg/L		50		μg/L	U	1.5	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	500 μg/L		100		μg/L		15	120	28
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	100 μg/L		100		μg/L	U	3.8	49	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene	50 μg/L		50		μg/L	U	1.3	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	50 μg/L		50		μg/L	U	0.79	9.9	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	50 μg/L		50		μg/L	U	0.79	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol	50 μg/L		50		μg/L	U	1.3	20	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline	100 μg/L		100		μg/L	U	1.9	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol	50 μg/L		50		μg/L	U	2.2	9.9	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine	50 μg/L		50		μg/L	U	1.8	99	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline	100 µg/L		100		μg/L	U	1.6		NA

	Table A-1 Ground	Water Split Sample Da	ta and Correspond	ing PRI	Sampl	Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results EA Sample Results PRP Sample Results PRP Sample Results PRP Sample Results PRP Sample Results PRP Sample Results PRP Sample Results PRP Sample Results PRP Sample Results PRP Sample Results PRP Sample Results PRP Sample Results											
			EA Sample Resul	lts		PRP	Sample Re	esults									
WELL	ANALYTE_GROUP	ANALYTE	Result Units Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	100 μg/L U	100	8	μg/L	U	8.2	25	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether	50 μg/L U	50		μg/L	U	0.99	15	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol	50 μg/L U	50		μg/L	U	1.7	9.9	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline	50 μg/L U	50		μg/L	U	2.1	9.9	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	50 μg/L U	50		μg/L	U	0.99	15	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	100 μg/L U	100		μg/L	U	2.5	25	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	100 μg/L U	100		μg/L	U	5.5	25	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	100 μg/L U	100		μg/L	U	0.79	15	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	50 μg/L U	50		μg/L	U	1.3	15	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether	50 μg/L U	50		μg/L	U	1.5	15	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate	50 μg/L U	50		μg/L	U	3.6	25	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	50 μg/L U	50		μg/L	U	1.2	25	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	50 μg/L U	50		μg/L	U	0.79	15	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	50 μg/L U	50	15	μg/L	U	15	25	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate	50 μg/L U	50		μg/L	U	0.69	25	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate	50 μg/L U	50		μg/L	U	1.1	25	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate	50 μg/L U	50		μg/L	U	1.6	49	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene	50 μg/L U	50		μg/L	U	1.1	15	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	50 μg/L U	50		μg/L	U	1.3	15	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	50 μg/L U	50	1	μg/L	U	0.99	20	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	50 μg/L U	50	1	μg/L	U	1.1	15	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	50 μg/L U	50	1	μg/L	U	1.1	15	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	50 μg/L U	50		μg/L	U	0.99	25	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol	2 μg/L U	2	6	μg/L	U	6	25	NA							
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	92 μg/L	50	31	μg/L		0.39	15	99							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13 μg/L U	13		μg/L	U	36	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13 μg/L U	13		μg/L	U	30	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13 μg/L U	13		μg/L	U	44	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13 μg/L U	13		μg/L	U	56	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13 μg/L U	13		μg/L	U	22	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13 μg/L U	13		μg/L	U	38	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13 μg/L U	13		μg/L	U	42	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13 μg/L U	13		μg/L	U	58	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13 μg/L U	13		μg/L	U	62	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	420 μg/L	13		μg/L		28	200	13							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	13 μg/L U	13		μg/L	U	160	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3 μg/L U	1.3	36	μg/L	U	36	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13 μg/L U	13		μg/L	U	20	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13 μg/L U	13		μg/L	U	28	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13 μg/L U	13		μg/L	U	32	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	180 µg/L	13		μg/L	J	20	200	5							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13 μg/L U	13		μg/L	U	26	200	NA							
MW-18	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13 μg/L U	13		μg/L	U	44	200	NA							

	Table A-1 Ground	l Water Split Sample D	ata and Corre	espondi	ing PRF	Sampl	e Resul	lts			
				ple Result		-		Sample Re	esults		
WELL	ANALYTE_GROUP	ANALYTE	Result Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-18	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13 µg/L	U	13	22	μg/L	U	22	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13 µg/L		13		μg/L	U	26	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130 µg/L		130		μg/L	U	150	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13 µg/L	U	13		μg/L	U	26	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130 µg/L		130		μg/L	U	70	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13 µg/L		13		μg/L	U	28	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130 µg/L		130		μg/L	U	90	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Acetone	130 µg/L	U	130		μg/L	U	200	1000	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Benzene	21000 µg/L		630	22000			400	5000	5
MW-18	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13 µg/L	U	13		μg/L	U	38	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13 µg/L		13		μg/L	U	32	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Bromoform	13 µg/L	U	13		μg/L	U	38	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Bromomethane	- 1.0	UJv	13		μg/L	U	50	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13 µg/L		13		μg/L	U	48	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13 µg/L	_	13		μg/L	U	30	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13 µg/L	_	13		μg/L	U	24	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13 µg/L		13		μg/L	U	16	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Chloroform	13 µg/L		13		μg/L	U	26	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13 µg/L	_	13		<u>μg/L</u> μg/L	U	36	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13 µg/L		13		μg/L	U	12	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13 µg/L		13		<u>μg/L</u> μg/L	U	36	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13 µg/L		13		μg/L μg/L	U	30	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13 µg/L		13		<u>μg/L</u> μg/L	U	100	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13 µg/L		13		μg/L μg/L	U*	24	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	850 µg/L		630		μg/L μg/L		22	200	12
MW-18	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13 μg/L	TJ	13		μg/L μg/L	U	34	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	47 μg/L		13		μg/L μg/L	I	36	200	18
MW-18	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13 μg/L	TJ	13		μg/L μg/L	U	24	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13 μg/L		13		<u>μg/L</u> μg/L	U	30	1000	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Naphthalene	130 µg/L		13		<u>μg/L</u> μg/L	I	64	200	21
MW-18	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13 μg/L	TT	13		<u>μg/L</u> μg/L	U	32	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	44 μg/L		13		μg/L μg/L	ī	30	200	17
MW-18	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	$\frac{13 \mu g/L}{13 \mu g/L}$	ĪŢ	13		μg/L μg/L	U	20	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13 μg/L		13		μg/L μg/L	U	24	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Styrene	$\frac{13 \mu\text{g/L}}{13 \mu\text{g/L}}$		13		μg/L μg/L	ī	14	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13 μg/L 13 μg/L		13		μg/L μg/L	U	16	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	$\frac{13 \mu \text{g/L}}{13 \mu \text{g/L}}$		13		μg/L μg/L	U	26	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Toluene	3900 µg/L		630	4500			30	200	14
MW-18	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13 μg/L	ĪŢ	13		μg/L μg/L	U	18	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13 μg/L 13 μg/L		13		μg/L μg/L	U	42	200	NA NA
MW-18	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13 μg/L 13 μg/L		13		μg/L μg/L	U	36	200	NA NA
MW-18	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13 μg/L 13 μg/L		13		μg/L μg/L	U	16	200	NA NA
MW-18	VOLATILE ORGANIC COMPOUNDS VOLATILE ORGANIC COMPOUNDS	Vinyl chloride			13			U	22	400	NA NA
1v1 vv - 1 Q	VOLATILE ORGANIC COMPOUNDS	v myr emoride	$13 \mu g/L$	UJ	13	22	μg/L	U	22	400	INA

	Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results EA Sample Results PRP Sample Results												
							PRP						
WELL	ANALYTE_GROUP	ANALYTE	Result Unit	s Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13 μg/L	U	13	9	μg/L	U	9	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13 μg/L	U	13	8	μg/L	U	7.5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13 μg/L	U	13	11	μg/L	U	11	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13 μg/L	U	13	14	μg/L	U	14	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13 μg/L	U	13	6	μg/L	U	5.5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13 μg/L	U	13	10	μg/L	U	9.5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13 μg/L	U	13	11	μg/L	U	11	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13 μg/L	U	13	15	μg/L	U	15	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13 μg/L	U	13	16	μg/L	U	16	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	250 μg/L		13	300	μg/L		7	50	18		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	13 μg/L	U	13	41	μg/L	U *	41	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3 μg/L	U	1.3	9	μg/L	U	9	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13 μg/L	U	13	5	μg/L	U	5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13 μg/L	U	13	7	μg/L	U	7	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13 μg/L	U	13	8	μg/L	U	8	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	72 μg/L		13		μg/L		5	50	18		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13 μg/L		13		μg/L	U	6.5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13 μg/L		13		μg/L	U	11	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13 μg/L		13		μg/L	U	5.5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13 μg/L		13		μg/L	U	6.5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130 µg/L		130		μg/L	U	38	100	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13 μg/L		13		μg/L	U	6.5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130 μg/L		130		μg/L	U	18	100	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13 μg/L		13		μg/L	U	7	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130 µg/L		130		μg/L	U	23	100	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Acetone	130 µg/L		130		μg/L	U	50	250	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Benzene	3900 μg/L		250	4400			40	500	12		
MW-19	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13 μg/L	U	13	10	μg/L	U	9.5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13 μg/L		13		μg/L	U	8	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Bromoform	13 μg/L		13		μg/L	U	9.5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13 μg/L		13		μg/L	U	13	100	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13 μg/L		13		μg/L	U	12	100	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13 μg/L		13		μg/L	U	7.5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13 μg/L		13		μg/L	U	6	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13 μg/L		13		μg/L	U	4	100	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Chloroform	13 μg/L		13		μg/L	J	6.5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13 μg/L		13		μg/L	U *	9	100	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13 μg/L		13		μg/L	U	3	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13 μg/L		13		μg/L	U	9	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13 μg/L		13		μg/L	U	7.5	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13 μg/L		13		μg/L	U	26	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13 μg/L		13		μg/L	U *	6	50	NA		
MW-19	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	410 μg/L		13		μg/L		5.5	50	22		

	Table A-1 Ground	Water Split Sample Da	ta and Correspo	nding PRI	Sampl	e Resu	lts			
	Family Family						sults			
WELL	ANALYTE_GROUP	ANALYTE	Result Units Quali	fier CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-19	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13 μg/L U	13	9	μg/L	U	8.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene		13			J	9	50	35
MW-19	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether		13				6	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Methylene chloride		13			U	7.5	250	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Naphthalene		13		_		16	50	32
MW-19	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13 μg/L U	13		μg/L	U	8	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	33 μg/L	13		μg/L	J	7.5	50	37
MW-19	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13 μg/L U	13		μg/L	U	5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13 μg/L U	13		μg/L	U	6	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Styrene	13 μg/L U	13		μg/L	U	3.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13 μg/L U	13		μg/L	U	4	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13 μg/L U	13		μg/L	U	6.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Toluene	27 μg/L	13		μg/L	J	7.5	50	4
MW-19	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13 μg/L U	13		μg/L	U	4.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13 μg/L U	13		μg/L	U	11	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13 μg/L U	13		μg/L	U	9	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13 μg/L U	13		μg/L	U	4	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13 µg/L UJ	13		μg/L	U	5.5	100	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1,2-Tetrachloroethane	0.5 μg/L U	0.5		μg/L	U	0.18	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5 μg/L U	0.5		μg/L	U	0.15	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5 μg/L UJv	0.5		μg/L	U	0.22	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5 μg/L U	0.5		μg/L	U	0.28	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5 μg/L U	0.5		μg/L	U	0.11	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5 μg/L U	0.5	0.19		U	0.19	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5 μg/L U	0.5		μg/L	U	0.21	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5 μg/L U	0.5	0.29		U	0.29	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5 μg/L U	0.5		μg/L	U	0.31	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5 μg/L U	0.5		μg/L	U	0.14	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05 μg/L UJv	0.05		μg/L	U	0.81	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05 μg/L U	0.05		μg/L	U	0.18	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5 μg/L U	0.5		μg/L	U	0.1	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5 μg/L U	0.5		μg/L	U	0.14	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5 μg/L U	0.5		μg/L	U	0.16	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5 μg/L U	0.5		μg/L	U	0.1	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5 μg/L U	0.5		μg/L	U	0.13	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5 μg/L U	0.5		μg/L	U	0.22	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5 μg/L U	0.5		μg/L	U	0.11	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5 μg/L U	0.5		μg/L	U	0.13	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5 μg/L U	5		μg/L	U	0.76	2	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5 μg/L U	0.5		μg/L	U	0.13	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	5 μg/L U	5		μg/L	U	0.35	2	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5 μg/L U	0.5		μg/L	U	0.14	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5 μg/L U	5		μg/L	U	0.45	2	NA

	Table A-1 Ground	d Water Split Sample D	ata and Correspond	ing PRI	Sampl	le Resu	lts			
			EA Sample Resul	ts		PRP	Sample Re	sults		
WELL	ANALYTE_GROUP	ANALYTE	Result Units Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-20	VOLATILE ORGANIC COMPOUNDS	Acetone	5 μg/L U	5	1	μg/L	U	0.99	5	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5 µg/L U	0.5		μg/L	U	0.08	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5 µg/L U	0.5		μg/L	U	0.19	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5 µg/L U	0.5		μg/L	U	0.16	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5 µg/L U	0.5		μg/L	U	0.19	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5 µg/L UJv	0.5		μg/L	U	0.25	2	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5 µg/L U	0.5		μg/L	U	0.24	2	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5 μg/L U	0.5		μg/L	U	0.15	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5 µg/L U	0.5		μg/L	U	0.12	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5 µg/L U	0.5		μg/L	U	0.08	2	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5 µg/L U	0.5		μg/L	U	0.13	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5 µg/L U	0.5		μg/L	U	0.18	2	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.5 μg/L U	0.5		μg/L	U	0.06	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5 μg/L U	0.5		μg/L	U	0.18	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5 μg/L U	0.5		μg/L	U	0.15	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5 μg/L U	0.5		μg/L	U	0.52	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5 µg/L U	0.5		μg/L	U *	0.12	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.5 µg/L U	0.5		μg/L	U	0.11	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5 μg/L U	0.5		μg/L	U	0.17	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.5 μg/L U	0.5		μg/L	U	0.18	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	2.4 µg/L	0.5		μg/L		0.12	1	26
MW-20	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5 µg/L U	0.5		μg/L	U	0.15	5	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Naphthalene	1 μg/L UM	0.5		μg/L	U	0.32	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5 μg/L U	0.5		μg/L	U	0.16	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5 μg/L U	0.5		μg/L	U	0.15	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5 µg/L U	0.5		μg/L	U	0.1	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5 μg/L U	0.5		μg/L	U	0.12	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5 μg/L U	0.5		μg/L	U	0.07	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5 μg/L U	0.5		μg/L	U	0.08	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	0.5 μg/L U	0.5		μg/L	U	0.13	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5 μg/L U	0.5		μg/L	U	0.15	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5 µg/L U	0.5		μg/L	U	0.09	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5 µg/L U	0.5		μg/L	U	0.21	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	0.5 μg/L U	0.5		μg/L	U	0.18	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5 μg/L U	0.5		μg/L	U	0.08	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5 µg/L UJ	0.5		μg/L	U	0.11	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5 μg/L U	0.5		μg/L	U	0.18	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5 µg/L U	0.5		μg/L	U	0.15	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5 µg/L U	0.5		μg/L	U	0.22	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5 µg/L UJv	0.5		μg/L	U	0.28	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5 µg/L U	0.5		μg/L	U	0.11	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5 μg/L U	0.5		μg/L	U	0.19	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5 μg/L U	0.5		μg/L	U	0.21	1	NA

	Table A-1 Ground V	Water Split Sample Da	ta and	Corr	espondi	ing PRP	Sampl	e Resul	ts			
			E	A San	nple Resul	ts		PRP	Sample Re	sults		
WELL	ANALYTE_GROUP	ANALYTE	Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	μg/L	U	0.5	0.29	μg/L	U	0.29	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene			U	0.5	0.31	μg/L	U	0.31	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene		μg/L	U	0.5	0.14		U	0.14	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane			UJv	0.05		μg/L	U	0.81	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane			U	0.05	0.18	μg/L	U	0.18	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene		μg/L	U	0.5		μg/L	U	0.1	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane		μg/L		0.5		μg/L	J	0.14	1	30
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane			U	0.5	0.16	μg/L	U	0.16	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	μg/L	U	0.5	0.1	μg/L	U	0.1	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene		μg/L	U	0.5	0.13		U	0.13	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane		μg/L	U	0.5	0.22		U	0.22	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5	μg/L	U	0.5	0.11		U	0.11	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5	μg/L	U	0.5	0.13		U	0.13	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5	μg/L	U	5		μg/L	U	0.76	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5	μg/L	U	0.5	0.13	μg/L	U	0.13	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	2-Hexanone		μg/L	U	5	0.35		U	0.35	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5	μg/L	U	0.5	0.14		U	0.14	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5	μg/L	U	5	0.45	μg/L	U	0.45	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Acetone	5	μg/L	U	5		μg/L	U	0.99	5	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5	μg/L	U	0.5	0.33		J	0.08	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5	μg/L	U	0.5	0.19		U	0.19	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane		μg/L	U	0.5		μg/L		0.16	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	μg/L	U	0.5	0.19	μg/L	U	0.19	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	μg/L	UJv	0.5	0.25	μg/L	U	0.25	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5	μg/L	U	0.5	0.24	μg/L	U	0.24	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	μg/L	UJ	0.5	0.15	μg/L	U	0.15	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene			U	0.5	0.12		U	0.12	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	μg/L	U	0.5	0.08		U	0.08	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Chloroform		μg/L		0.5	0.17	μg/L	J	0.13	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5	μg/L	U	0.5	0.18	μg/L	U	0.18	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.78	μg/L		0.5	1	μg/L	J	0.06	1	5
MW-21	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene		μg/L	UJv	0.5	0.18	μg/L	U	0.18	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	μg/L	U	0.5	0.15	μg/L	U	0.15	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	μg/L	U	0.5	1	μg/L	U	0.52	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	μg/L	U	0.5	0.12	μg/L	U *	0.12	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	5.9	μg/L	J^	0.5	7	μg/L		0.11	1	11
MW-21	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	μg/L	U	0.5	0.17	μg/L	U	0.17	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene		μg/L		0.5		μg/L		0.18	1	5
MW-21	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether		μg/L		0.5	0.37		J	0.12	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Methylene chloride		μg/L		0.5	0.15		U	0.15	5	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Naphthalene		μg/L		0.5		μg/L		0.32	1	59
MW-21	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene		μg/L		0.5	0.37		J	0.16	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene		μg/L		0.5		μg/L		0.15	1	NA

	Table A-1 Ground	Water Split Sample Da	ta and Corresp	ponding Pl	RP Samp	le Resu	lts			
			EA Sample	Results		PRP	Sample Re	esults		
WELL	ANALYTE_GROUP	ANALYTE	Result Units Qu	alifier CRQ	Result	Units	Qualifier	MDL	RL	RPD
MW-21	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5 μg/L U	(.5 0.1	μg/L	U	0.1	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.27 µg/L LJ	(μg/L	J	0.12	1	4
MW-21	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5 μg/L U	(μg/L	U	0.07	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5 μg/L U	(μg/L	J	0.08	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	1.2 µg/L J^	(.5 1	μg/L		0.13	1	0
MW-21	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5 μg/L U	(.5 0.15	μg/L	U	0.15	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5 μg/L U	(μg/L	U	0.09	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5 μg/L UJv	v (μg/L	U	0.21	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	2.3 µg/L J^			μg/L		0.18	1	0
MW-21	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5 μg/L U	(μg/L	U	0.08	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5 µg/L UJ	(μg/L	U	0.11	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,2-Tetrachloroethane	0.5 μg/L U	(μg/L	U	0.18	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5 μg/L U			μg/L	U	0.15	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5 μg/L U			μg/L	U	0.22	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5 μg/L U			μg/L	U	0.28	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5 μg/L U			μg/L	U	0.11	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5 μg/L U			μg/L	U	0.19	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5 μg/L U			μg/L	U	0.21	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5 μg/L U			μg/L	U	0.29	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5 μg/L U			μg/L	U	0.31	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5 μg/L U	(μg/L	U	0.14	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05 μg/L UJv	v 0.		μg/L	U	0.81	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05 μg/L UJv		0.18	μg/L	U	0.18	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5 μg/L U			μg/L	U	0.1	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5 μg/L U	(μg/L	U	0.14	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5 µg/L U	(μg/L	U	0.16	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5 μg/L U			μg/L	U	0.1	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5 μg/L U			μg/L	U	0.13	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5 μg/L U	(μg/L	U	0.22	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5 μg/L U			μg/L	U	0.11	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5 μg/L U	(μg/L	U	0.13	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5 μg/L U			μg/L	U	0.76	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5 µg/L U	(μg/L	U	0.13	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	5 μg/L U			μg/L	U	0.35	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5 μg/L U	(μg/L	U	0.14	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5 μg/L U			μg/L	U	0.45	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Acetone	5 μg/L U		5 1	μg/L	U	0.99	5	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5 µg/L U	(.5 0.08	μg/L	U	0.08	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5 μg/L U	(μg/L	U	0.19	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5 μg/L U			μg/L	U	0.16	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5 μg/L U			μg/L	U	0.19	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5 μg/L UJv			μg/L	U	0.25	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5 μg/L U			μg/L	U	0.24	2	NA

	Table A-1 Ground V	Water Split Sample Da	ata and	Cor	respondi	ing PRF	Sampl	e Resul	ts			
					mple Resul				Sample Re	sults		
WELL	ANALYTE_GROUP	ANALYTE			Qualifier		Result		Qualifier	MDL	RL	RPD
MW-22	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	μg/L	UJ	0.5	0.15	μg/L	U	0.15	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene		μg/L	U	0.5		μg/L	U	0.12	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chloroethane		μg/L	U	0.5		μg/L	U	0.08	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chloroform		μg/L	U	0.5		μg/L	U	0.13	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chloromethane			U	0.5		μg/L	U	0.18	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene			-	0.5		μg/L	U	0.06	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene		μg/L		0.5		μg/L	U	0.18	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane				0.5		μg/L	U	0.15	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Dibromomethane		μg/L	U	0.5		μg/L	U	0.52	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane		μg/L	U	0.5		μg/L	U *	0.12	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene		μg/L	U	0.5		μg/L	U	0.11	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene		μg/L	U	0.5		μg/L	U	0.17	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene		μg/L	U	0.5		μg/L	U	0.18	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether		μg/L	U	0.5		μg/L	J	0.12	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Methylene chloride		μg/L	U	0.5	0.15		U	0.15	5	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Naphthalene		μg/L	U	0.5		μg/L	J	0.32	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene		μg/L	U	0.5		μg/L	U	0.16	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene		μg/L	U	0.5	0.15		U	0.15	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene		μg/L	U	0.5		μg/L	U	0.1	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene		μg/L	U	0.5		μg/L	U	0.12	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Styrene		μg/L	U	0.5		μg/L	U	0.07	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene			U	0.5		μg/L	U	0.08	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene		μg/L		0.5		μg/L		0.13	1	7
MW-22	VOLATILE ORGANIC COMPOUNDS	Toluene			U	0.5		μg/L	U	0.15	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene				0.5		μg/L	U	0.09	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene		· •		0.5		μg/L	U	0.21	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Trichloroethene		μg/L		0.5		μg/L		0.18	1	0
MW-22	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane		μg/L		0.5		μg/L	U	0.08	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride		μg/L		0.5		μg/L	U	0.11	2	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,2-Tetrachloroethane		μg/L		0.5		μg/L	U	0.9	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane		μg/L		0.5		μg/L	U	0.75	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane		μg/L		0.5		μg/L	U	1.1	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane			UJv	0.5		μg/L	U	1.4	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane		μg/L		0.5		μg/L	U	0.55	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene		μg/L		0.5		μg/L	U	0.95	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene		μg/L		0.5		μg/L	U	1.1	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane		μg/L		0.5		μg/L	U	1.5	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene		μg/L		0.5		μg/L	U	1.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene		μg/L		0.5		μg/L	U	0.7	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane			UJv	0.05		μg/L	U	4.1	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane		μg/L		0.05		μg/L	U	0.9	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene		μg/L		0.5		μg/L	U	0.5	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane		μg/L		0.5		μg/L	U	0.7	5	NA

	Table A-1 Groun	d Water Split Sample D	ata and Correspondi	ing PRF	Sampl	le Resu	lts			
			EA Sample Resul	ts		PRP	Sample Re	esults		
WELL	ANALYTE_GROUP	ANALYTE	Result Units Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5 μg/L U	0.5	1	μg/L	U	0.8	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5 µg/L U	0.5		μg/L	U	0.5	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5 µg/L U	0.5		μg/L	U	0.65	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5 µg/L U	0.5		μg/L	U	1.1	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5 µg/L U	0.5		μg/L	U	0.55	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5 µg/L U	0.5		μg/L	U	0.65	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5 μg/L U	5		μg/L	U	3.8	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5 µg/L U	0.5		μg/L	U	0.65	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	6.1 µg/L	5	2	μg/L	U	1.8	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5 µg/L U	0.5		μg/L	U	0.7	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5 μg/L U	5		μg/L	U	2.3	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Acetone	5 μg/L U	5		μg/L	U	5	25	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5 µg/L U	0.5		μg/L	J	0.4	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5 μg/L U	0.5		μg/L	U	0.95	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5 µg/L U	0.5		μg/L	U	0.8	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5 µg/L U	0.5		μg/L	U	0.95	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5 µg/L UJv	0.5	1	μg/L	U	1.3	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5 µg/L U	0.5		μg/L	U	1.2	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5 µg/L UJ	0.5		μg/L	U	0.75	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5 µg/L U	0.5	1	μg/L	U	0.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5 µg/L U	0.5		μg/L	U	0.4	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5 µg/L U	0.5		μg/L	U	0.65	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5 µg/L U	0.5		μg/L	U	0.9	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.5 µg/L U	0.5		μg/L	U	0.3	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5 µg/L UJv	0.5		μg/L	U	0.9	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5 µg/L U	0.5		μg/L	U	0.75	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5 µg/L U	0.5		μg/L	U	2.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5 µg/L U	0.5		μg/L	U *	0.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.5 μg/L U	0.5	1	μg/L	U	0.55	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5 μg/L U	0.5		μg/L	U	0.85	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.58 µg/L	0.5		μg/L	U	0.9	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5 µg/L U	0.5		μg/L	U	0.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5 μg/L U	0.5		μg/L	U	0.75	25	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Naphthalene	0.5 μg/L U	0.5		μg/L	U	1.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5 μg/L U	0.5		μg/L	U	0.8	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5 µg/L U	0.5		μg/L	U	0.75	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5 μg/L U	0.5	1	μg/L	U	0.5	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5 µg/L U	0.5		μg/L	U	0.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5 µg/L U	0.5		μg/L	U	0.35	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5 µg/L U	0.5		μg/L	U	0.4	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	0.5 µg/L U	0.5		μg/L	U	0.65	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5 μg/L U	0.5		μg/L	U	0.75	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5 μg/L U	0.5	0.45	μg/L	U	0.45	5	NA

	Table A-1 Groun	d Water Split Sample Da	ta and Co	rrespond	ing PRF	Sampl	le Resu	lts			
			EA S	ample Resul	lts		PRP	Sample Re	esults		
WELL	ANALYTE_GROUP	ANALYTE	Result Uni	its Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-4	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5 μg/I	L UJv	0.5	1	μg/L	U	1.1	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	0.5 μg/I	L U	0.5	1	μg/L	U	0.9	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5 μg/I		0.5	0.4	μg/L	U	0.4	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5 μg/I		0.5		μg/L	U	0.55	10	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5 μg/I	L U	0.5	0.18	μg/L	U	0.18	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5 μg/I	L U	0.5		μg/L	U	0.15	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5 μg/I	L U	0.5		μg/L	U	0.22	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5 μg/I		0.5		μg/L	U	0.28	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5 μg/I		0.5		μg/L	U	0.11	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5 μg/I		0.5		μg/L	U	0.19	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5 μg/I		0.5		μg/L	U	0.21	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5 μg/I		0.5		μg/L	U	0.29	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5 μg/I		0.5		μg/L	U	0.31	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5 μg/I		0.5		μg/L	U	0.14	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05 μg/I		0.05		μg/L	U	0.81	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05 μg/I		0.05		μg/L	U	0.18	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5 μg/I		0.5		μg/L	U	0.1	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5 μg/I		0.5		μg/L	U	0.14	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5 μg/I		0.5		μg/L	U	0.16	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5 μg/I		0.5		μg/L	U	0.1	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5 μg/I		0.5		μg/L	U	0.13	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5 μg/I		0.5		μg/L	U	0.22	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5 μg/I		0.5		μg/L	U	0.11	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5 μg/I		0.5		μg/L	U	0.13	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5 μg/I		5		μg/L	U	0.76	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5 μg/I		0.5		μg/L	U	0.13	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	5 μg/I	L U	5		μg/L	U	0.35	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5 μg/I	L U	0.5		μg/L	U	0.14	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5 μg/I		5		μg/L	U	0.45	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Acetone	5 μg/I		5		μg/L	U	0.99	5	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5 μg/I		0.5		μg/L	J	0.08	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5 μg/I		0.5		μg/L	U	0.19	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5 μg/I		0.5		μg/L	U	0.16	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5 μg/I		0.5		μg/L	U	0.19	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5 μg/I	L UJv	0.5		μg/L	U	0.25	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5 μg/I		0.5		μg/L	U	0.24	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5 μg/I		0.5		μg/L	U	0.15	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5 μg/I		0.5		μg/L	U	0.12	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5 μg/I		0.5		μg/L	U	0.08	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5 μg/I		0.5		μg/L	J	0.13	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5 μg/I		0.5		μg/L	U	0.18	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.5 μg/I		0.5		μg/L	U	0.06	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5 μg/I		0.5		μg/L	U	0.18	1	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

		pir sample 20						C 1 D	T.		
				A Sample Re			PRP	Sample Re			
WELL	ANALYTE_GROUP	ANALYTE	Result	Units Qualif	ier CRQL	Result	Units	Qualifier	MDL	RL	RPD
MW-9	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	μg/L U	0.5	0.15	μg/L	U	0.15	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	μg/L U	0.5	1	μg/L	U	0.52	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	μg/L U	0.5	0.12	μg/L	U *	0.12	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.91	μg/L	0.5	1	μg/L		0.11	1	28
MW-9	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	μg/L U	0.5	0.17	μg/L	U	0.17	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.5	μg/L U	0.5	0.18	μg/L	U	0.18	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5	μg/L U	0.5	0.12	μg/L	U	0.12	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5	μg/L U	0.5	0.15	μg/L	U	0.15	5	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Naphthalene	0.5	μg/L U	0.5	0.32	μg/L	U	0.32	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5	μg/L U	0.5	0.16	μg/L	U	0.16	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5	μg/L U	0.5	0.15	μg/L	U	0.15	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5	μg/L U	0.5	0.1	μg/L	U	0.1	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5	μg/L U	0.5	0.12	μg/L	U	0.12	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5	μg/L U	0.5	0.07	μg/L	U	0.07	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	μg/L U	0.5	0.08	μg/L	U	0.08	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	1.1	μg/L	0.5	1	μg/L		0.13	1	9
MW-9	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5	μg/L U	0.5	0.15	μg/L	U	0.15	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5	μg/L U	0.5	0.09	μg/L	U	0.09	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5	μg/L U	0.5	0.21	μg/L	U	0.21	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	1.1	μg/L	0.5		μg/L		0.18	1	9
MW-9	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	μg/L U	0.5	0.08	μg/L	U	0.08	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	μg/L UJ	0.5		μg/L	U	0.11	2	NA

NOTE:

CRQL = Contract-required quantitation limit

MDL = Method detection limit

NA = Split samples did not have detected results in both EPA and PRP data.

RL = Reporting limit

RPD = Relative percent difference

CLP Laboratory Qualifiers (used for EPA split samples):

- J = Estimated value.
- v = Low biased. Actual concentration may be higher than the concentration reported.
- ^ = High biased. Actual concentration may be lower than the concentration reported.
- L = Reported concentration is below the CRQL.
- M = Reported concentration should be used as a raised quantitation limit because of interferences and/or laboratory contamination.
- U = Not detected at reported quantitation limit.

TestAmerica Laboratory Qualifiers (used for PRP samples):

- J = Result is less than the reporting limit, but greater than or equal to the MDL, and the concentration is an approximate value.
- B = Compound was found in the blank and sample.
- U = Indicates the analyte was analyzed for but not detected.
- * = LCS or LCSD exceeds the control limits.
- ^ = Instrument related QC exceeds the control limits.

Table A-2 Air Data Analyses Summary

Sample ID	Sample Date	Analysis Method	Dilution	Analyte	Result	Units	Qualifiers	Reporting Limit
SG-19-D	5/9/2012	TO-15	10	Acetone	110	ug/m3		59
SG-19-D	5/9/2012	TO-15	1.30208	Carbon disulfide	ND	ug/m3	U	1
SG-19-D	5/9/2012	TO-15	1.30208	Carbon tetrachloride	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	10	Chlorobenzene	ND	ug/m3	U	12
SG-19-D	5/9/2012	TO-15	1.30208	Chlorodibromomethane	ND	ug/m3	U	2.8
SG-19-D	5/9/2012	TO-15	1.30208	Chloroethane	ND	ug/m3	U	0.86
SG-19-D	5/9/2012	TO-15	1.30208	Chloroform	ND	ug/m3	U	0.32
SG-19-D	5/9/2012	TO-15	1.30208	Chloromethane	ND	ug/m3	U	0.67
SG-19-D	5/9/2012	TO-15	1.30208	Cyclohexane	11	ug/m3		1.1
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dibromoethane	ND	ug/m3	U	2.5
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dichlorobenzene	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	1.30208	Acrolein	ND	ug/m3	U	1.5
SG-19-D	5/9/2012	TO-15	1.30208	1,3-Dichlorobenzene	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	1.30208	1,4-Dichlorobenzene	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	1.30208	Dichlorodifluoromethane	ND	ug/m3	U	1.6
SG-19-D	5/9/2012	TO-15	1.30208	1,1-Dichloroethane	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dichloroethane	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	1,1-Dichloroethene	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	cis-1,2-Dichloroethene	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	trans-1,2-Dichloroethene	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	500	1,2-Dichloropropane	ND	ug/m3	U	580
SG-19-D	5/9/2012	TO-15	1.30208	cis-1,3-Dichloropropene	ND	ug/m3	U	1.5
SG-19-D	5/9/2012	TO-15	1.30208	Benzene	1.9	ug/m3		0.21
SG-19-D	5/9/2012	TO-15	1.30208	trans-1,3-Dichloropropene	ND	ug/m3	U	1.5
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ug/m3	U	2.3
SG-19-D	5/9/2012	TO-15	1.30208	1,4-Dioxane	ND	ug/m3	U	4.7
SG-19-D	5/9/2012	TO-15	1.30208	Ethyl acetate	ND	ug/m3	U	2.3
SG-19-D	5/9/2012	TO-15	1.30208	Ethylbenzene	ND	ug/m3	U	1.4
SG-19-D	5/9/2012	TO-15	1.30208	1-Ethyl-4-methylbenzene	ND	ug/m3	U	1.6
SG-19-D	5/9/2012	TO-15	1.30208	n-Heptane	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	Hexachlorobutadiene	ND	ug/m3	U	3.5
SG-19-D	5/9/2012	TO-15	1.30208	n-Hexane	2.6	ug/m3		1.1
SG-19-D	5/9/2012	TO-15	1.30208	Benzyl chloride	ND	ug/m3	U	3.4
SG-19-D	5/9/2012	TO-15	1.30208	2-Hexanone	ND	ug/m3	U	2.7
SG-19-D	5/9/2012	TO-15	500	Isopropyl alcohol	18000	ug/m3		6100
SG-19-D	5/9/2012	TO-15	10	Methylene chloride	ND	ug/m3	U	8.7
SG-19-D	5/9/2012	TO-15	1.30208	4-Methyl-2-pentanone	ND	ug/m3	U	2.7
SG-19-D	5/9/2012	TO-15	1.30208	Methyl methacrylate	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	Methyl tertiary-butyl ether	ND	ug/m3	U	1.2
SG-19-D	5/9/2012	TO-15	1.30208	Propene	ND	ug/m3	U	0.56

Table A-2 Air Data Analyses Summary

Sample ID	Sample Date	Analysis Method	Dilution	Analyte	Result	Units	Qualifiers	Reporting Limit
SG-19-D	5/9/2012	TO-15	1.30208	Styrene	ND	ug/m3	U	1.4
SG-19-D	5/9/2012	TO-15	1.30208	1,1,2,2-Tetrachloroethane	ND	ug/m3	U	2.2
SG-19-D	5/9/2012	TO-15	1.30208	1,3-Butadiene	ND	ug/m3	U	0.72
SG-19-D	5/9/2012	TO-15	1.30208	Tetrachloroethene	ND	ug/m3	U	0.44
SG-19-D	5/9/2012	TO-15	1.30208	Tetrahydrofuran	ND	ug/m3	U	0.96
SG-19-D	5/9/2012	TO-15	1.30208	Toluene	3.6	ug/m3		1.2
SG-19-D	5/9/2012	TO-15	1.30208	1,2,4-Trichlorobenzene	ND	ug/m3	U	2.4
SG-19-D	5/9/2012	TO-15	1.30208	1,1,1-Trichloroethane	ND	ug/m3	U	1.8
SG-19-D	5/9/2012	TO-15	1.30208	1,1,2-Trichloroethane	ND	ug/m3	U	1.8
SG-19-D	5/9/2012	TO-15	1.30208	Trichloroethene	ND	ug/m3	U	0.35
SG-19-D	5/9/2012	TO-15	1.30208	Trichlorofluoromethane	ND	ug/m3	U	1.8
SG-19-D	5/9/2012	TO-15	1.30208	1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/m3	U	2.5
SG-19-D	5/9/2012	TO-15	1.30208	1,2,4-Trimethylbenzene	2.4	ug/m3		1.6
SG-19-D	5/9/2012	TO-15	1.30208	1,3,5-Trimethylbenzene	ND	ug/m3	U	1.6
SG-19-D	5/9/2012	TO-15	1.30208	Vinyl acetate	ND	ug/m3	U	2.3
SG-19-D	5/9/2012	TO-15	1.30208	Vinyl chloride	0.27	ug/m3		0.17
SG-19-D	5/9/2012	TO-15	1.30208	meta-/para-Xylene	2.7	ug/m3		1.4
SG-19-D	5/9/2012	TO-15	1.30208	ortho-Xylene	ND	ug/m3	U	1.4
SG-19-D	5/9/2012	TO-15	1.30208	Bromodichloromethane	ND	ug/m3	U	2.2
SG-19-D	5/9/2012	TO-15	1.30208	Bromoform	ND	ug/m3	U	3.4
SG-19-D	5/9/2012	TO-15	1.30208	Bromomethane	ND	ug/m3	U	1.3

NOTE:

Qualifiers

U =The analyte was not detected at or above the reported value.

J = The identification of the analyte is acceptable; the reported value is an estimate.

B = Blank related - The concentration found in the sample was less than 10 times the concentration found in the associated extraction, digestion, and/or analysis blank. Presence in the sample is therefore suspect.

September 2012

Analysis	Comple II	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT		Qualifier	RPD
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VOC	MW-21	Dichlorodifluoromethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Chloromethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Vinyl chloride	0.50	0.50	μg/L	UJ	0.50	0.50	μg/L	UJ	0.0
VOC	MW-21	Bromomethane	0.50	0.50	μg/L	UJv	0.50	0.50	μg/L	UJv	0.0
VOC	MW-21	Chloroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Trichlorofluoromethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,1-Dichloroethene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Acetone	5.0	5.0	μg/L	U	5.0	5.0	μg/L	U	0.0
VOC	MW-21	Carbon Disulfide	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Methyl acetate	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Methylene chloride	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	trans-1,2-Dichloroethene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Methyl tert-butyl ether	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,1-Dichloroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	cis-1,2-Dichloroethene	0.50	0.78	μg/L		0.50	0.73	μg/L		6.6
VOC	MW-21	2-Butanone	5.0	5.0	μg/L	U	5.0	5.0	μg/L	U	0.0
VOC	MW-21	Bromochloromethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Chloroform	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,1,1-Trichloroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Cyclohexane	0.50	1.1	μg/L		0.50	1.0	μg/L		9.5
VOC	MW-21	Carbon tetrachloride	0.50	0.50	μg/L	UJ	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Benzene	0.50	0.50	μg/L	U	0.50	0.33	μg/L	LJ	41.0
VOC	MW-21	1,2-Dichloroethane	0.50	0.53	μg/L		0.50	0.48	μg/L	LJ	9.9
VOC	MW-21	Trichloroethene	0.50	2.3	μg/L	J^	0.50	2.2	μg/L		4.4
VOC	MW-21	1,2-Dichloropropane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Bromodichloromethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	cis-1,3-Dichloropropene	0.50	0.50	μg/L	UJv	0.50	0.50	μg/L	U	0.0
VOC	MW-21	4-Methyl-2-pentanone	5.0	5.0	μg/L	U	5.0	5.0	μg/L	U	0.0
VOC	MW-21	Toluene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	trans-1,3-Dichloropropene	0.50	0.50	μg/L	UJv	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,1,2-Trichloroethane	0.50	0.50	μg/L	UJv	0.50	0.50	μg/L	U	0.0

	la 1 7	Table A-3 Relative Perc			_					0 110	DDD
Analysis		D Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	-	Qualifier	RPD
VOC	MW-21	Tetrachloroethene	0.50	1.2	μg/L	J^	0.50	1.1	μg/L		8.7
VOC	MW-21	2-Hexanone	5.0	5.0	μg/L	U	5.0	5.0	μg/L	U	0.0
VOC	MW-21	Dibromochloromethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Chlorobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Ethylbenzene	0.50	5.9	μg/L	J^	0.50	5.6	μg/L		5.2
VOC	MW-21	o-Xylene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	m,p-Xylene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Styrene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Bromoform	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Isopropylbenzene	0.50	2.0	μg/L	J^	0.50	1.9	μg/L		5.1
VOC	MW-21	1,1,2,2-Tetrachloroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,3-Dichlorobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,4-Dichlorobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,2-Dichlorobenzene	0.50	0.50	μg/L	U	0.50	0.50	$\mu g/L$	U	0.0
VOC	MW-21	1,2,4-Trichlorobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,2,3-Trichlorobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,3-Dichloropropane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	n-Butylbenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	sec-Butylbenzene	0.50	0.27	μg/L	LJ	0.50	0.50	μg/L	U	59.7
VOC	MW-21	tert-Butylbenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	2-Chlorotoluene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	4-Chlorotoluene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Dibromomethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,3,5-Trimethylbenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	2,2-Dichloropropane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,1-Dichloropropene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Hexachlorobutadiene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	p-Isopropyltoluene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Naphthalene	0.50	1.8	μg/L	UM	0.50	2.2	μg/L	UM	20.0
VOC	MW-21	n-Propylbenzene	0.50	0.50	μg/L	U	0.50	2.5	μg/L		133.3
VOC	MW-21	1,1,1,2-Tetrachloroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	1,2,3-Trichloropropane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0

-	•	Table A-3 Relative Perce								_	
Analysis	Sample II	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
VOC	MW-21	1,2,4-Trimethylbenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Bromobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-21	Methylcyclohexane	5.0	120	μg/L		5.0	120	μg/L		0.0
VOC	MW-21	1,2-Dibromoethane	0.050	0.050	μg/L	U	0.050	0.050	μg/L	U	0.0
VOC	MW-21	1,2-Dibromo-3-chloropropane	0.050	0.050	μg/L	UJv	0.050	0.050	μg/L	UJv	0.0
VOC	MW-4	Dichlorodifluoromethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Chloromethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Vinyl chloride	0.50	0.50	μg/L	UJ	0.50	0.50	μg/L	UJ	0.0
VOC	MW-4	Bromomethane	0.50	0.50	μg/L	UJv	0.50	0.50	μg/L	UJv	0.0
VOC	MW-4	Chloroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Trichlorofluoromethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,1-Dichloroethene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Acetone	5.0	5.0	μg/L	U	5.0	5.0	μg/L	U	0.0
VOC	MW-4	Carbon Disulfide	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Methyl acetate	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Methylene chloride	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	trans-1,2-Dichloroethene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Methyl tert-butyl ether	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,1-Dichloroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	cis-1,2-Dichloroethene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	2-Butanone	5.0	5.0	μg/L	U	5.0	5.0	μg/L	U	0.0
VOC	MW-4	Bromochloromethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Chloroform	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,1,1-Trichloroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Cyclohexane	0.50	3.5	μg/L		0.50	3.8	μg/L		8.2
VOC	MW-4	Carbon tetrachloride	0.50	0.50	μg/L	UJ	0.50	0.50	μg/L	UJ	0.0
VOC	MW-4	Benzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,2-Dichloroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Trichloroethene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Methylcyclohexane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,2-Dichloropropane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0

		Table A-3 Relative Percei	nt Differ	ence Cal	culation	ons for E	PA Fiel	a Dupii	cates		
Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
VOC	MW-4	Bromodichloromethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	cis-1,3-Dichloropropene	0.50	0.50	μg/L	UJv	0.50	0.50	μg/L	UJv	0.0
VOC	MW-4	4-Methyl-2-pentanone	5.0	5.0	μg/L	U	5.0	5.0	μg/L	U	0.0
VOC	MW-4	Toluene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	trans-1,3-Dichloropropene	0.50	0.50	μg/L	UJv	0.50	0.50	μg/L	UJv	0.0
VOC	MW-4	1,1,2-Trichloroethane	0.50	0.50	μg/L	UJv	0.50	0.50	μg/L	UJv	0.0
VOC	MW-4	Tetrachloroethene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	2-Hexanone	5.0	6.1	μg/L		5.0	6.8	μg/L		10.9
VOC	MW-4	Dibromochloromethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Chlorobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Ethylbenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	o-Xylene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	m,p-Xylene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Styrene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Bromoform	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Isopropylbenzene	0.50	0.58	μg/L		0.50	0.67	μg/L		14.4
VOC	MW-4	1,1,2,2-Tetrachloroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,3-Dichlorobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,4-Dichlorobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,2-Dichlorobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,2,4-Trichlorobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,2,3-Trichlorobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,3-Dichloropropane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	n-Butylbenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	sec-Butylbenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	tert-Butylbenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	2-Chlorotoluene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	4-Chlorotoluene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Dibromomethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,3,5-Trimethylbenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	2,2-Dichloropropane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,1-Dichloropropene	0.50	0.50	$\mu g/L$	U	0.50	0.50	μg/L	U	0.0

_		Table A-3 Relative Percer	nt Differ	ence Cal	culation	ons for E	PA Fiel	la Dupli	cates		
Analysis	Sample II	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
VOC	MW-4	Hexachlorobutadiene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	p-Isopropyltoluene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Naphthalene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	n-Propylbenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,1,1,2-Tetrachloroethane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,2,3-Trichloropropane	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,2,4-Trimethylbenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	Bromobenzene	0.50	0.50	μg/L	U	0.50	0.50	μg/L	U	0.0
VOC	MW-4	1,2-Dibromoethane	0.050	0.050	μg/L	U	0.050	0.050	μg/L	U	0.0
VOC	MW-4	1,2-Dibromo-3-chloropropane	0.050	0.050	μg/L	UJv	0.050	0.050	μg/L	UJv	0.0
SVOC	MW-14	3,3,5-trimethylcyclohexanone	100	100	μg/L	U	100	100	μg/L	U	0.0
SVOC	MW-14	Aniline	100	100	μg/L	U	100	100	μg/L	U	0.0
SVOC	MW-14	Benzaldehyde	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Phenol	250	1200	μg/L		250	1000	μg/L		18.2
SVOC	MW-14	Bis(2-Chloroethyl)ether	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	2-Chlorophenol	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	2-Methylphenol	250	1200	μg/L		250	1000	μg/L		18.2
SVOC	MW-14	2,2'-Oxybis(1-chloropropane)	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Acetophenone	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	4-Methylphenol	250	830	μg/L		250	700	μg/L		17.0
SVOC	MW-14	N-Nitroso-di-n-propylamine	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Hexachloroethane	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Nitrobenzene	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Isophorone	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	2-Nitrophenol	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	2,4-Dimethylphenol	250	620	μg/L		250	530	μg/L		15.7
SVOC	MW-14	Bis(2-chloroethoxy)methane	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	2,4-Dichlorophenol	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Naphthalene	13	240	μg/L		50	320	μg/L		28.6
SVOC	MW-14	4-Chloroaniline	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Hexachlorobutadiene	13	13	μg/L	U	50	50	μg/L	U	117.5
SVOC	MW-14	Caprolactam	50	50	μg/L	U	50	50	μg/L	U	0.0

<u> </u>		Table A-3 Relative Percer									
Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
SVOC	MW-14	4-Chloro-3-methylphenol	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	2-Methylnaphthalene	50	83	μg/L		50	75	μg/L		10.1
SVOC	MW-14	Hexachlorocyclopentadiene	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	2,4,6-Trichlorophenol	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	2,4,5-Trichlorophenol	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	1,1'-Biphenyl	50	4.2	μg/L	LJ	50	4.8	μg/L	LJ	13.3
SVOC	MW-14	2-Chloronaphthalene	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	2-Nitroaniline	100	100	μg/L	U	100	100	μg/L	U	0.0
SVOC	MW-14	Dimethylphthalate	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	2,6-Dinitrotoluene	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Acenaphthylene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	3-Nitroaniline	100	100	μg/L	U	100	100	μg/L	U	0.0
SVOC	MW-14	Acenaphthene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	2,4-Dinitrophenol	100	100	μg/L	U	100	100	μg/L	U	0.0
SVOC	MW-14	4-Nitrophenol	100	100	μg/L	U	100	100	μg/L	U	0.0
SVOC	MW-14	Dibenzofuran	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	2,4-Dinitrotoluene	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Diethylphthalate	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Fluorene	1	0.49	μg/L	LJ	1.0	1.0	μg/L	U	68.5
SVOC	MW-14	4-Chlorophenyl-phenylether	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	4-Nitroaniline	100	100	μg/L	U	100	100	μg/L	U	0.0
SVOC	MW-14	4,6-Dinitro-2-methylphenol	100	100	μg/L	U	100	100	μg/L	U	0.0
SVOC	MW-14	N-Nitrosodiphenylamine	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	1,2,4,5-Tetrachlorobenzene	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	4-Bromophenyl-phenylether	50		μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Hexachlorobenzene	50		μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Atrazine	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Pentachlorophenol	2	2	μg/L	U	2	2	μg/L	U	0.0
SVOC	MW-14	Phenanthrene	1.0		μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	Anthracene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	Carbazole	50		μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Di-n-butylphthalate	50	50	μg/L	U	50	50	μg/L	U	0.0

		Table A-3 Relative Perce	nt Diffe	rence Ca	Iculati	ons for E	CPA FIE	ela Dupi	icates		
Analysis	Sample II	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
SVOC	MW-14	Fluoranthene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	Pyrene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	Butylbenzylphthalate	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	3,3'-Dichlorobenzidine	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Benzo(a)anthracene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	Chrysene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	Bis(2-ethylhexyl)phthalate	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Di-n-octylphthalate	50	50	μg/L	U	50	50	μg/L	U	0.0
SVOC	MW-14	Benzo(b)fluoranthene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	Benzo(k)fluoranthene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	Benzo(a)pyrene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	Indeno(1,2,3-cd)pyrene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	Dibenzo(a,h)anthracene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	Benzo(g,h,I)perylene	1.0	1.0	μg/L	U	1.0	1.0	μg/L	U	0.0
SVOC	MW-14	2,3,4,6-Tetrachlorophenol	50	50	μg/L	U	50	50	μg/L	U	0.0
Metals	MW-14	Aluminum	200	200	mg/L	U	200	200	mg/L	U	0.0
Metals	MW-14	Antimony	2.0	22.3	mg/L		2.0	20.8	mg/L		7.0
Metals	MW-14	Arsenic	1.0	374	mg/L		1.0	377	mg/L		0.8
Metals	MW-14	Barium	10.0	443	mg/L		10.0	422	mg/L		4.9
Metals	MW-14	Beryllium	1.0	1.0	mg/L	U	1.0	1.0	mg/L	U	0.0
Metals	MW-14	Cadmium	1.0	1.0	mg/L	U	1.0	1.0	mg/L	U	0.0
Metals	MW-14	Calcium	5000	120000	mg/L		5000	117000	mg/L		2.5
Metals	MW-14	Chromium	2.0	0.56	mg/L	LJ	2.0	0.52	mg/L	LJ	7.4
Metals	MW-14	Cobalt	1.0	7.7	mg/L		1.0	7.8	mg/L		1.3
Metals	MW-14	Copper	2.0	0.64	mg/L	LJ	2.0	0.60	mg/L	LJ	6.5
Metals	MW-14	Iron	100	13300	mg/L		100	12700	mg/L		4.6
Metals	MW-14	Lead	1.0	8.8	mg/L		1.0	8.4	mg/L		4.7
Metals	MW-14	Magnesium	5000	14300	mg/L		5000	13900	mg/L		2.8
Metals	MW-14	Manganese	2.0	1130	mg/L		2.0	1170	mg/L		3.5
Metals	MW-14	Mercury	0.20	0.044	mg/L	LJ	0.20	0.056	mg/L	LJ	24.0
Metals	MW-14	Nickel	1.0	7.2	mg/L	1	1.0	7.4	mg/L		2.7
Metals	MW-14	Potassium	5000	1060	mg/L	LJ	5000	5000	mg/L	U	130.0

Table A-3 Relative Percent Difference Calculations for EPA Field Duplicates											
Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
Metals	MW-14	Selenium	5.0	17.4	mg/L		5.0	16.2	mg/L		7.1
Metals	MW-14	Silver	1.0	1.0	mg/L	U	1.0	1.0	mg/L	U	0.0
Metals	MW-14	Sodium	5000	222000	mg/L		5000	217000	mg/L		2.3
Metals	MW-14	Thallium	1.0	1.0	mg/L	U	1.0	1.0	mg/L	U	0.0
Metals	MW-14	Vanadium	5.0	5.0	mg/L	U	5.0	5.0	mg/L	U	0.0
Metals	MW-14	Zinc	2.0	2.4	mg/L		2.0	2.7	mg/L		11.8
VOC	SG-19	Acetone	8.1	70	ug/m3	J	59	110	ug/m3		44.4
VOC	SG-19	Carbon disulfide	7.8	7.8	ug/m3	U	1	1	ug/m3	U	154.5
VOC	SG-19	Carbon tetrachloride	2.1	2.1	ug/m3	U	2	2	ug/m3	U	4.9
VOC	SG-19	Chlorobenzene	12	12	ug/m3	U	12	12	ug/m3	U	0.0
VOC	SG-19	Chlorodibromomethane	2.9	2.9	ug/m3	U	2.8	2.8	ug/m3	U	3.5
VOC	SG-19	Chloroethane	0.9	0.9	ug/m3	U	0.86	0.86	ug/m3	U	4.5
VOC	SG-19	Chloroform	0.33	0.33	ug/m3	U	0.32	0.32	ug/m3	U	3.1
VOC	SG-19	Chloromethane	0.7	0.7	ug/m3	U	0.67	0.67	ug/m3	U	4.4
VOC	SG-19	Cyclohexane	1.2	30	ug/m3		1.1	11	ug/m3		92.7
VOC	SG-19	1,2-Dibromoethane	2.6	2.6	ug/m3	U	2.5	2.5	ug/m3	U	3.9
VOC	SG-19	1,2-Dichlorobenzene	2	2	ug/m3	U	2	2	ug/m3	U	0.0
VOC	SG-19	Acrolein	1.6	1.6	ug/m3	U	1.5	1.5	ug/m3	U	6.5
VOC	SG-19	1,3-Dichlorobenzene	2	2	ug/m3	U	2	2	ug/m3	U	0.0
VOC	SG-19	1,4-Dichlorobenzene	2	2	ug/m3	U	2	2	ug/m3	U	0.0
VOC	SG-19	Dichlorodifluoromethane	1.7	1.7	ug/m3	U	1.6	1.6	ug/m3	U	6.1
VOC	SG-19	1,1-Dichloroethane	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	1,2-Dichloroethane	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	1,1-Dichloroethene	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	cis-1,2-Dichloroethene	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	trans-1,2-Dichloroethene	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	1,2-Dichloropropane	1.6	1.6	ug/m3	U	580	580	ug/m3	U	198.9
VOC	SG-19	cis-1,3-Dichloropropene	1.5	1.5	ug/m3	U	1.5	1.5	ug/m3	U	0.0
VOC	SG-19	Benzene	0.22	11	ug/m3		0.21	1.9	ug/m3		141.1
VOC	SG-19	trans-1,3-Dichloropropene	1.5	1.5	ug/m3	U	1.5	1.5	ug/m3	U	0.0
VOC	SG-19	1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.4	2.4	ug/m3	U	2.3	2.3	ug/m3	U	4.3
VOC	SG-19	1,4-Dioxane	4.9	4.9	ug/m3	U	4.7	4.7	ug/m3	U	4.2
VOC	SG-19	Ethyl acetate	2.5	2.5	ug/m3	U	2.3	2.3	ug/m3	U	8.3

		Table A-3 Relative Perce	ent Diffe	rence Ca	Iculati	ons for E	PA Fie				
Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
VOC	SG-19	Ethylbenzene	1.5	1.5	ug/m3	U	1.4	1.4	ug/m3	U	6.9
VOC	SG-19	1-Ethyl-4-methylbenzene	1.7	1.7	ug/m3	U	1.6	1.6	ug/m3	U	6.1
VOC	SG-19	n-Heptane	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	Hexachlorobutadiene	3.6	3.6	ug/m3	U	3.5	3.5	ug/m3	U	2.8
VOC	SG-19	n-Hexane	1.2	1.7	ug/m3		1.1	2.6	ug/m3		41.9
VOC	SG-19	Benzyl chloride	3.5	3.5	ug/m3	U	3.4	3.4	ug/m3	U	2.9
VOC	SG-19	2-Hexanone	2.8	2.8	ug/m3	U	2.7	2.7	ug/m3	U	3.6
VOC	SG-19	Isopropyl alcohol	6100	17000	ug/m3		6100	18000	ug/m3		5.7
VOC	SG-19	Methylene chloride	8.7	8.7	ug/m3	U	8.7	8.7	ug/m3	U	0.0
VOC	SG-19	4-Methyl-2-pentanone	2.8	2.8	ug/m3	U	2.7	2.7	ug/m3	U	3.6
VOC	SG-19	Methyl methacrylate	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	Methyl tertiary-butyl ether	1.2	1.2	ug/m3	U	1.2	1.2	ug/m3	U	0.0
VOC	SG-19	Propene	0.59	1.5	ug/m3		0.56	0.56	ug/m3	U	91.3
VOC	SG-19	Styrene	1.5	1.5	ug/m3	U	1.4	1.4	ug/m3	U	6.9
VOC	SG-19	1,1,2,2-Tetrachloroethane	2.3	2.3	ug/m3	U	2.2	2.2	ug/m3	U	4.4
VOC	SG-19	1,3-Butadiene	0.75	0.75	ug/m3	U	0.72	0.72	ug/m3	U	4.1
VOC	SG-19	Tetrachloroethene	0.46	0.46	ug/m3	U	0.44	0.44	ug/m3	U	4.4
VOC	SG-19	Tetrahydrofuran	1	1	ug/m3	U	0.96	0.96	ug/m3	U	4.1
VOC	SG-19	Toluene	1.3	3.2	ug/m3		1.2	3.6	ug/m3		11.8
VOC	SG-19	1,2,4-Trichlorobenzene	2.5	2.5	ug/m3	U	2.4	2.4	ug/m3	U	4.1
VOC	SG-19	1,1,1-Trichloroethane	1.9	1.9	ug/m3	U	1.8	1.8	ug/m3	U	5.4
VOC	SG-19	1,1,2-Trichloroethane	1.9	1.9	ug/m3	U	1.8	1.8	ug/m3	U	5.4
VOC	SG-19	Trichloroethene	0.37	0.37	ug/m3	U	0.35	0.35	ug/m3	U	5.6
VOC	SG-19	Trichlorofluoromethane	1.9	1.9	ug/m3	U	1.8	1.8	ug/m3	U	5.4
VOC	SG-19	1,1,2-Trichloro-1,2,2-trifluoroethane	2.6	2.6	ug/m3	U	2.5	2.5	ug/m3	U	3.9
VOC	SG-19	1,2,4-Trimethylbenzene	1.7	2.9	ug/m3		1.6	2.4	ug/m3		18.9
VOC	SG-19	1,3,5-Trimethylbenzene	1.7	1.7	ug/m3	U	1.6	1.6	ug/m3	U	6.1
VOC	SG-19	Vinyl acetate	2.4	2.4	ug/m3	U	2.3	2.3	ug/m3	U	4.3
VOC	SG-19	Vinyl chloride	0.17	0.17	ug/m3	U	0.17	0.27	ug/m3		45.5
VOC	SG-19	meta-/para-Xylene	1.5	3	ug/m3		1.4	2.7	ug/m3		10.5
VOC	SG-19	ortho-Xylene	1.5	1.5	ug/m3	U	1.4	1.4	ug/m3	U	6.9
VOC	SG-19	Bromodichloromethane	2.3	2.3	ug/m3	U	2.2	2.2	ug/m3	U	4.4
VOC	SG-19	Bromoform	3.5	3.5	ug/m3	U	3.4	3.4	ug/m3	U	2.9

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EA Engineering, Science, and Technology, Inc.

Table A-3 Relative Percent Difference Calculations for EPA Field Duplicates

Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
VOC	SG-19	Bromomethane	1.3	1.3	ug/m3	U	1.3	1.3	ug/m3	U	0.0

NOTE:

CRQL = Contract-required quantitation limit

RPD = Relative percent difference

CLP Laboratory Qualifiers:

J = Estimated value.

v = Low biased. Actual concentration may be higher than the concentration reported.

^ = High biased. Actual concentration may be lower than the concentration reported.

L = Reported concentration is below the CRQL.

M = Reported concentration should be used as a raised quantitation limit because of interferences and/or laboratory contamination

U = Not detected at reported quantitation limit.

September 2012

EA Engineering, Science, and Technology, Inc.

Table A-4 Mean Relative Percent Difference (RPDs) of Detected Results

ANALYTE GROUP	ANALYTE	Mean RPD
INORGANICS	Arsenic	8
INORGANICS	Barium	3
INORGANICS	Cobalt	8
INORGANICS	Copper	72
INORGANICS	Lead	27
INORGANICS	Manganese	7
INORGANICS	Nickel	18
INORGANICS	Zinc	90
POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	20
SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	15
SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	129
VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	23
VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	30
VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	12
VOLATILE ORGANIC COMPOUNDS	Benzene	10
VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	5
VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	18
VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	24
VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	26
VOLATILE ORGANIC COMPOUNDS	Naphthalene	32
VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	29
VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	4
VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	5
VOLATILE ORGANIC COMPOUNDS	Toluene	11
VOLATILE ORGANIC COMPOUNDS	Trichloroethene	3

Note:

Boldface results indicate RPD > 50%.

September 2012

Appendix B Laboratory Analytical Reports and Case Narratives

(Electronically on CD)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Laboratory

Environmental Services Branch 10625 Fallstone Road, Houston, TX 77099 Phone: (281)983-2100 Fax: (281)983-2248

Final Analytical Report

Site NameR & H Oil / Tropicana
Sample Collection Date(s) 05/08/12 - 05/09/12
Contact Chris Villarreal (6SF-RA)
Report Date07/30/12
Project # 12SF105
Work Order(s) 1205004

Analyses included in this report:

Air TO-15(SIM/Scan) dual units

Report Narrative

The "B" flag for trichloroethene in samples 1205004-05 and 1205004-07 are required because the concentrations found in these samples were less than ten times the concentration found in the associated analysis blank.

The "J" flag for acetone in sample 1205004-02 is required because its concentration, 21.7 ppbv, exceeded the upper calibration limit of 20.0 ppbv. This is a small amount over the limit and no bias is expected.

Two samples, 1205004-02 and 1205004-03, had so much interference that substantial dilutions had to be made in order to analyze them.

Two samples, 1205004-01 and 1205004-05, arrived in the lab with so little sample, as indicated by their initial pressures, that a dilution had to be performed before analysis.

Standard procedures for quality reporting of the sample results. should only be reproduced in full	The results apply only		
Reporting limits are adjusted for	sample size and matrix i	nterference.	
Report Approvals:			
Richard McMillin Region 6 Laboratory Manager		David Neleigh Region 6 Laboratory Bra	anch Chief

ONITED STATES

Please provide a reason for holding:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Environmental Services Branch Laboratory

10625 Fallstone Road Houston, Texas 77099

Sample Receipt and Disposal

Site Name: R & H Oil / Tropicana Project Number: 12SF105							
Data Management Coordinator: Christy Warren	/ /						
Data Management Coordinator Signature	Date						
Date Transmitted:/							
Please have the U.S. EPA Project Manager/Office comments or questions.	er call the Data Management Coordinator at 3-2137 for any						
Please sign and date this form below and return it	with any comments to:						
Christy Warren Data Management Coordinator Region 6 Laboratory 6MD-HS							
	/						
Received by and Date							
Comments:							
The laboratory routinely disposes of samples 90 d hold these samples in custody longer than 90 days	lays after all analyses have been completed. If you have a need to s, please sign below.						
Signature	Date						



Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
SG-14	1205004-01	air	5/8/12 17:16	05/14/12 09:15
SG-19	1205004-02	air	5/9/12 18:43	05/14/12 09:15
SG-19-D	1205004-03	air	5/9/12 18:43	05/14/12 09:15
SG-21	1205004-04	air	5/8/12 14:29	05/14/12 09:15
SG-22	1205004-05	air	5/8/12 15:29	05/14/12 09:15
SS-2	1205004-06	air	5/8/12 16:19	05/14/12 09:15
TB-1-Air	1205004-07	air	5/8/12 18:00	05/14/12 09:15

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

1205004-01 Station ID: SG-14 Lab ID:

Batch: B2E1401 Date Collected: 05/08/12 Initial Pressure: 1.9 psia Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	3.63		90.8	70-130	05/14/12 05/27/12

Targets

	D	14	A 14 -		orting			
Analyte (CAS Number)		esult μg/m³	Analyte Qualifiers	Liı ppbv	mι μg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		12,500	29,800	5000	05/14/12	05/27/12
Acrolein (107-02-8)	U	U		2,500	5,740	"	"	"
Benzene (71-43-2)	136,000	435,000		2,500	8,000	50000	"	"
Benzyl chloride (100-44-7)	U	U		2,500	13,000	5000	"	"
1,3-Butadiene (106-99-0)	U	U		1,250	2,770	"	"	"
2-Butanone (78-93-3)	U	U		5,000	14,800	"	"	"
Bromodichloromethane (75-27-4)	U	U		1,250	8,390	"	"	"
Bromoform (75-25-2)	U	U		1,250	12,900	"	"	"
Bromomethane (74-83-9)	U	U		1,250	4,860	"	"	"
Carbon disulfide (75-15-0)	U	U		1,250	3,900	"	"	"
Carbon tetrachloride (56-23-5)	U	U		1,250	7,880	"	"	"
Chlorobenzene (108-90-7)	U	U		1,250	5,770	"	"	"
Chlorodibromomethane (124-48-1)	U	U		1,250	10,700	"	"	"
Chloroethane (75-00-3)	U	U		1,250	3,310	"	"	"
Chloroform (67-66-3)	U	U		250	1,220	"	"	"
Chloromethane (74-87-3)	U	U		1,250	2,590	"	"	"
Cyclohexane (110-82-7)	562,000	1.94E6		12,500	43,100	50000	"	"
1,2-Dibromoethane (106-93-4)	U	U		1,250	9,630	5000	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		1,250	7,530	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		1,250	7,530	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		1,250	7,530	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		1,250	6,190	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		1,250	5,070	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		1,250	5,070	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		1,250	4,970	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		1,250	4,970	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		1,250	4,970	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		1,250	5,790	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-01 Station ID: SG-14

Batch: B2E1401 Date Collected: 05/08/12 Initial Pressure: 1.9 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

		1,			orting			
Analyta (CAS Number)		esult μg/m³	Analyte Qualifiers	Lir ppbv	nit μg/m³	Dilution	Draparad	Analyzed
Analyte (CAS Number)			Qualificis					<u>_</u>
cis-1,3-Dichloropropene (10061-01-5)	U	U		1,250	5,680	5000	05/14/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)		U		1,250	5,680	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		1,250	8,760	"	"	"
1,4-Dioxane (123-91-1)	U	U		5,000	18,100	"	"	"
Ethyl acetate (141-78-6)	U	U		2,500	9,030	"	"	"
Ethyl alcohol (64-17-5)	U	U		5,000	9,440	"	"	"
Ethylbenzene (100-41-4)	U	U		1,250	5,430	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		1,250	6,150	"	"	"
n-Heptane (142-82-5)	2,550	10,500		1,250	5,130	"	"	05/27/12
Hexachlorobutadiene (87-68-3)	U	U		1,250	13,400	"	"	05/27/12
n-Hexane (110-54-3)	35,200	124,000		1,250	4,410	"	"	05/27/12
2-Hexanone (591-78-6)	U	U		2,500	10,300	"	"	05/27/12
Isopropyl alcohol (67-63-0)	U	U		25,000	61,600	"	"	"
Methylene chloride (75-09-2)	U	U		1,250	4,350	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		2,500	10,300	"	"	"
Methyl methacrylate (80-62-6)	U	U		1,250	5,130	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		1,250	4,510	"	"	"
Propene (115-07-1)	19,700	34,000		1,250	2,160	"	"	05/27/12
Styrene (100-42-5)	U	U		1,250	5,340	"	"	05/27/12
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		1,250	8,600	"	"	"
Tetrachloroethene (127-18-4)	U	U		250	1,700	"	"	"
Tetrahydrofuran (109-99-9)	U	U		1,250	3,690	"	"	"
Toluene (108-88-3)	U	U		1,250	4,720	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		1,250	9,300	"	"	05/27/12
1,1,1-Trichloroethane (71-55-6)	U	U		1,250	6,840	"	"	05/27/12
1,1,2-Trichloroethane (79-00-5)	U	U		1,250	6,840	"	"	"
Trichloroethene (79-01-6)	U	U		250	1,350	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		1,250	7,040	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		1,250	9,600	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	4,000	19,700		1,250	6,160	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		1,250	6,160	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-01 Station ID: SG-14

Batch: B2E1401 Date Collected: 05/08/12 Initial Pressure: 1.9 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Ro ppbv	esult µg/m³	Analyte Qualifiers		orting nit µg/m³	Dilution	Prepared	Analyzed
Vinyl acetate (108-05-4)	U	U		2,500	8,820	5000	05/14/12	05/27/12
Vinyl chloride (75-01-4)	U	U		250	640	"	"	"
meta-/para-Xylene (na)	3,350	14,600		1,250	5,440	"	"	05/27/12
ortho-Xylene (95-47-6)	U	U		1,250	5,430	"	"	05/27/12
								E

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-02 Station ID: SG-19

Batch: B2E1504 Date Collected: 05/09/12 Initial Pressure: 11.5 psia Sample Type: air Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	3.96		99.0	70-130	05/15/12 05/26/12

Targets

	n	Reporting Result Analyte Limit								
Analyte (CAS Number)		esult µg/m³	Analyte Qualifiers	L11 ppbv	mit µg/m³	Dilution	Prepared	Analyzed		
Acetone (67-64-1)	29.6	70.3	J	3.41	8.11	1.362398	05/15/12	05/26/12		
Acrolein (107-02-8)	U	U	Ū	0.68	1.57	"	"	"		
Benzene (71-43-2)	3.41	10.9		0.07	0.22	"	"	"		
Benzyl chloride (100-44-7)	U	U		0.68	3.53	"	"	"		
1,3-Butadiene (106-99-0)	U	U		0.34	0.76	"	"	"		
2-Butanone (78-93-3)	5.18	15.3		1.36	4.02	"	"	"		
Bromodichloromethane (75-27-4)	U	U		0.34	2.29	"	"	"		
Bromoform (75-25-2)	U	U		0.34	3.53	"	"	"		
Bromomethane (74-83-9)	U	U		0.34	1.33	"	"	"		
Carbon disulfide (75-15-0)	U	U		2.50	7.80	10	"	05/26/12		
Carbon tetrachloride (56-23-5)	U	U		0.34	2.15	1.362398	"	05/26/12		
Chlorobenzene (108-90-7)	U	U		2.50	11.5	10	"	05/26/12		
Chlorodibromomethane (124-48-1)	U	U		0.34	2.91	1.362398	"	05/26/12		
Chloroethane (75-00-3)	U	U		0.34	0.90	"	"	"		
Chloroform (67-66-3)	U	U		0.07	0.33	"	"	"		
Chloromethane (74-87-3)	U	U		0.34	0.70	"	"	"		
Cyclohexane (110-82-7)	8.72	30.1		0.34	1.18	"	"	"		
1,2-Dibromoethane (106-93-4)	U	U		0.34	2.62	"	"	"		
1,2-Dichlorobenzene (95-50-1)	U	U		0.34	2.05	"	"	"		
1,3-Dichlorobenzene (541-73-1)	U	U		0.34	2.05	"	"	"		
1,4-Dichlorobenzene (106-46-7)	U	U		0.34	2.05	"	"	"		
Dichlorodifluoromethane (75-71-8)	U	U		0.34	1.69	"	"	"		
1,1-Dichloroethane (75-34-3)	U	U		0.34	1.38	"	"	"		
1,2-Dichloroethane (107-06-2)	U	U		0.34	1.38	"	"	"		
1,1-Dichloroethene (75-35-4)	U	U		0.34	1.35	"	"	"		
cis-1,2-Dichloroethene (156-59-2)	U	U		0.34	1.35	"	"	"		
trans-1,2-Dichloroethene (156-60-5)	U	U		0.34	1.35	"	"	"		
1,2-Dichloropropane (78-87-5)	U	U		0.34	1.58	"	"	"		

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-02 Station ID: SG-19

Batch: B2E1504 Date Collected: 05/09/12 Initial Pressure: 11.5 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	т.	1,	A 1 .	-	orting			
Analyta (CAS Number)		esult μg/m³	Analyte Qualifiers	Lir ppbv	nit μg/m³	Dilution	Drangrad	Analyzed
Analyte (CAS Number)			Quaimers				-	•
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.34	1.55	1.362398	05/15/12	05/26/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.34	1.55	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.34	2.39	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.36	4.92	"	"	"
Ethyl acetate (141-78-6)	U	U		0.68	2.46	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.36	2.57	"	"	"
Ethylbenzene (100-41-4)	U	U		0.34	1.48	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.34	1.68	"	"	"
n-Heptane (142-82-5)	U	U		0.34	1.40	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.34	3.64	"	"	"
n-Hexane (110-54-3)	0.48	1.68		0.34	1.20	"	"	"
2-Hexanone (591-78-6)	U	U		0.68	2.80	"	"	"
Isopropyl alcohol (67-63-0)	6,950	17,100		2,500	6,160	500	"	05/27/12
Methylene chloride (75-09-2)	U	U		2.50	8.70	10	"	05/26/12
4-Methyl-2-pentanone (108-10-1)	U	U		0.68	2.79	1.362398	"	05/26/12
Methyl methacrylate (80-62-6)	U	U		0.34	1.40	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.34	1.23	"	"	"
Propene (115-07-1)	0.86	1.48		0.34	0.59	"	"	"
Styrene (100-42-5)	U	U		0.34	1.45	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.34	2.34	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.07	0.46	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.34	1.01	"	"	"
Toluene (108-88-3)	0.86	3.24		0.34	1.29	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.34	2.53	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.34	1.86	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.34	1.86	"	"	"
Trichloroethene (79-01-6)	U	U		0.07	0.37	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.34	1.92	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.34	2.62	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	0.59	2.89		0.34	1.68	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.34	1.68	"	"	"
Vinyl acetate (108-05-4)	U	U		0.68	2.40	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-02 Station ID: SG-19

Batch: B2E1504 Date Collected: 05/09/12 Initial Pressure: 11.5 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	R	esult	Analyte	Repo Lir	orting nit			
Analyte (CAS Number)	ppbv	$\mu g/m^3$	Qualifiers	ppbv	μg/m³	Dilution	Prepared	Analyzed
Vinyl chloride (75-01-4)	U	U		0.07	0.17	1.362398	05/15/12	05/26/12
meta-/para-Xylene (na)	0.68	2.96		0.34	1.48	"	"	"
ortho-Xylene (95-47-6)	U	U		0.34	1.48	"	"	"

F.

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-03 Station ID: SG-19-D

Batch: B2E1504 Date Collected: 05/09/12 Initial Pressure: 11.5 psia Sample Type: air Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	4.11		103	70-130	05/15/12 05/26/12

Targets

					orting			
		esult	Analyte	Liı		~		, , .
Analyte (CAS Number)	ppov	$\mu g/m^3$	Qualifiers	ppbv	μg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	47.4	113		25.0	59.5	10	05/15/12	05/26/12
Acrolein (107-02-8)	U	U		0.65	1.50	1.302083	"	05/26/12
Benzene (71-43-2)	0.59	1.88		0.07	0.21	"	"	"
Benzyl chloride (100-44-7)	U	U		0.65	3.38	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.33	0.72	"	"	"
2-Butanone (78-93-3)	8.53	25.2		1.30	3.85	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.33	2.19	"	"	"
Bromoform (75-25-2)	U	U		0.33	3.37	"	"	"
Bromomethane (74-83-9)	U	U		0.33	1.27	"	"	"
Carbon disulfide (75-15-0)	U	U		0.33	1.02	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.33	2.05	"	"	"
Chlorobenzene (108-90-7)	U	U		2.50	11.5	10	"	05/26/12
Chlorodibromomethane (124-48-1)	U	U		0.33	2.78	1.302083	"	05/26/12
Chloroethane (75-00-3)	U	U		0.33	0.86	"	"	"
Chloroform (67-66-3)	U	U		0.07	0.32	"	"	"
Chloromethane (74-87-3)	U	U		0.33	0.67	"	"	"
Cyclohexane (110-82-7)	3.32	11.5		0.33	1.12	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.33	2.51	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.33	1.96	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		0.33	1.96	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		0.33	1.96	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.33	1.61	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.33	1.32	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.33	1.32	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.33	1.29	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.33	1.29	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.33	1.29	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		125	579	500	"	05/27/12

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-03 Station ID: SG-19-D

Batch: B2E1504 Date Collected: 05/09/12 Initial Pressure: 11.5 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	ъ	- a.u.14	A 14 -		orting			
Analyte (CAS Number)		esult µg/m³	Analyte Qualifiers	Lir ppbv	mit µg/m³	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.33	1.48	1.302083	05/15/12	05/26/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.33	1.48	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane	U	U		0.33	2.28	"	"	"
(76-14-2)		C						
1,4-Dioxane (123-91-1)	U	U		1.30	4.70	"	"	"
Ethyl acetate (141-78-6)	U	U		0.65	2.35	"	"	"
Ethyl alcohol (64-17-5)	U	U		500	944	500	"	05/27/12
Ethylbenzene (100-41-4)	U	U		0.33	1.42	1.302083	"	05/26/12
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.33	1.60	"	"	"
n-Heptane (142-82-5)	U	U		0.33	1.34	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.33	3.48	"	"	"
n-Hexane (110-54-3)	0.74	2.62		0.33	1.15	"	"	"
2-Hexanone (591-78-6)	U	U		0.65	2.67	"	"	"
Isopropyl alcohol (67-63-0)	7,220	17,800		2,500	6,160	500	"	05/27/12
Methylene chloride (75-09-2)	U	U		2.50	8.70	10	"	05/26/12
4-Methyl-2-pentanone (108-10-1)	U	U		0.65	2.67	1.302083	"	05/26/12
Methyl methacrylate (80-62-6)	U	U		0.33	1.34	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.33	1.18	"	"	"
Propene (115-07-1)	U	U		0.33	0.56	"	"	"
Styrene (100-42-5)	U	U		0.33	1.39	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.33	2.24	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.07	0.44	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.33	0.96	"	"	"
Toluene (108-88-3)	0.95	3.59		0.33	1.23	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.33	2.42	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.33	1.78	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.33	1.78	"	"	"
Trichloroethene (79-01-6)	U	U		0.07	0.35	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.33	1.83	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.33	2.50	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	0.48	2.37		0.33	1.60	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.33	1.60	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-03 Station ID: SG-19-D

Batch: B2E1504 Date Collected: 05/09/12 Initial Pressure: 11.5 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	Re	esult	Analyte	Repo Lir	orting nit			
Analyte (CAS Number)	ppbv	$\mu g/m^3$	Qualifiers	ppbv	$\mu g/m^3$	Dilution	Prepared	Analyzed
Vinyl acetate (108-05-4)	U	U		0.65	2.30	1.302083	05/15/12	05/26/12
Vinyl chloride (75-01-4)	0.10	0.27		0.07	0.17	"	"	"
meta-/para-Xylene (na)	0.62	2.72		0.33	1.42	"	"	"
ortho-Xylene (95-47-6)	U	U		0.33	1.42	"	"	"

F.

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-04 Station ID: SG-21

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 11.4 psia Sample Type: air Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	4.13		103	70-130	05/15/12 05/27/12

Targets

					orting			
		esult	Analyte	Lir		D'I d'	D 1	A 1 1
Analyte (CAS Number)	ppov	$\mu g/m^3$	Qualifiers	ppbv	μg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		25.0	59.5	10	05/15/12	05/27/12
Acrolein (107-02-8)	U	U		5.00	11.5	"	"	"
Benzene (71-43-2)	18.9	60.5		0.50	1.60	"	"	"
Benzyl chloride (100-44-7)	U	U		5.00	25.9	"	"	"
1,3-Butadiene (106-99-0)	U	U		2.50	5.54	"	"	"
2-Butanone (78-93-3)	U	U		10.0	29.5	"	"	"
Bromodichloromethane (75-27-4)	U	U		2.50	16.8	"	"	"
Bromoform (75-25-2)	U	U		2.50	25.9	"	"	"
Bromomethane (74-83-9)	U	U		2.50	9.73	"	"	"
Carbon disulfide (75-15-0)	5.60	17.5		2.50	7.80	"	"	"
Carbon tetrachloride (56-23-5)	U	U		2.50	15.8	"	"	"
Chlorobenzene (108-90-7)	U	U		2.50	11.5	"	"	"
Chlorodibromomethane (124-48-1)	U	U		2.50	21.3	"	"	"
Chloroethane (75-00-3)	U	U		2.50	6.61	"	"	"
Chloroform (67-66-3)	U	U		0.50	2.45	"	"	"
Chloromethane (74-87-3)	U	U		2.50	5.17	"	"	"
Cyclohexane (110-82-7)	54.9	189		2.50	8.63	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		2.50	19.3	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		2.50	15.1	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		2.50	15.1	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		2.50	15.1	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		2.50	12.4	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		2.50	10.1	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		2.50	10.1	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		2.50	9.93	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		2.50	9.93	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		2.50	9.93	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		2.50	11.6	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-04 Station ID: SG-21

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 11.4 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	ת	a a v 14	A = 14-		orting			
Analyte (CAS Number)		esult µg/m³	Analyte Qualifiers	Lir ppbv	nit μg/m³	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U	U		2.50	11.4	10	05/15/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		2.50	11.4	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane	U	U		2.50	17.5	"	"	"
(76-14-2)		C						
1,4-Dioxane (123-91-1)	U	U		10.0	36.1	"	"	"
Ethyl acetate (141-78-6)	U	U		5.00	18.1	"	"	"
Ethyl alcohol (64-17-5)	U	U		10.0	18.9	"	"	"
Ethylbenzene (100-41-4)	9.80	42.6		2.50	10.9	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		2.50	12.3	"	"	"
n-Heptane (142-82-5)	U	U		2.50	10.3	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		2.50	26.7	"	"	"
n-Hexane (110-54-3)	U	U		2.50	8.82	"	"	"
2-Hexanone (591-78-6)	U	U		5.00	20.5	"	"	"
Isopropyl alcohol (67-63-0)	135	333		50.0	123	"	"	"
Methylene chloride (75-09-2)	U	U		2.50	8.70	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		5.00	20.5	"	"	"
Methyl methacrylate (80-62-6)	U	U		2.50	10.3	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		2.50	9.03	"	"	"
Propene (115-07-1)	9.20	15.9		2.50	4.31	"	"	"
Styrene (100-42-5)	U	U		2.50	10.7	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		2.50	17.2	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.50	3.40	"	"	"
Tetrahydrofuran (109-99-9)	U	U		2.50	7.38	"	"	"
Toluene (108-88-3)	5.40	20.4		2.50	9.44	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		2.50	18.6	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		2.50	13.7	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		2.50	13.7	"	"	"
Trichloroethene (79-01-6)	U	U		0.50	2.69	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		2.50	14.1	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		2.50	19.2	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	U	U		2.50	12.3	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		2.50	12.3	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-04 Station ID: SG-21

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 11.4 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Re ppbv	esult µg/m³	Analyte Qualifiers		orting nit µg/m³	Dilution	Prepared	Analyzed
Vinyl acetate (108-05-4)	U	U		5.00	17.6	10	05/15/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.50	1.28	"	"	"
meta-/para-Xylene (na)	2.80	12.2		2.50	10.9	"	"	"
ortho-Xylene (95-47-6)	U	U		2.50	10.9	"	"	"
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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-05 Station ID: SG-22

Batch: B2E1401 Date Collected: 05/08/12 Initial Pressure: 8.5 psia Sample Type: air Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	3.61		90.2	70-130	05/14/12 05/27/12

Targets

	Reporting Result Analyte Limit								
Analyte (CAS Number)		esult µg/m³	Analyte Qualifiers	ppbv	mit µg/m³	Dilution	Prepared	Analyzed	
Acetone (67-64-1)	U	U		2.50	5.95	1	05/14/12	05/27/12	
Acrolein (107-02-8)	U	U		0.50	1.15	"	"	"	
Benzene (71-43-2)	0.06	0.19		0.05	0.16	"	"	"	
Benzyl chloride (100-44-7)	U	U		0.50	2.59	"	"	"	
1,3-Butadiene (106-99-0)	U	U		0.25	0.55	"	"	"	
2-Butanone (78-93-3)	U	U		1.00	2.95	"	"	"	
Bromodichloromethane (75-27-4)	U	U		0.25	1.68	"	"	"	
Bromoform (75-25-2)	U	U		0.25	2.59	"	"	"	
Bromomethane (74-83-9)	U	U		0.25	0.97	"	"	"	
Carbon disulfide (75-15-0)	U	U		0.25	0.78	"	"	"	
Carbon tetrachloride (56-23-5)	U	U		0.25	1.58	"	"	"	
Chlorobenzene (108-90-7)	U	U		0.25	1.15	"	"	"	
Chlorodibromomethane (124-48-1)	U	U		0.25	2.13	"	"	"	
Chloroethane (75-00-3)	U	U		0.25	0.66	"	"	"	
Chloroform (67-66-3)	U	U		0.05	0.24	"	"	"	
Chloromethane (74-87-3)	U	U		0.25	0.52	"	"	"	
Cyclohexane (110-82-7)	U	U		0.25	0.86	"	"	"	
1,2-Dibromoethane (106-93-4)	U	U		0.25	1.93	"	"	"	
1,2-Dichlorobenzene (95-50-1)	U	U		0.25	1.51	"	"	"	
1,3-Dichlorobenzene (541-73-1)	U	U		0.25	1.51	"	"	"	
1,4-Dichlorobenzene (106-46-7)	U	U		0.25	1.51	"	"	"	
Dichlorodifluoromethane (75-71-8)	U	U		0.25	1.24	"	"	"	
1,1-Dichloroethane (75-34-3)	U	U		0.25	1.01	"	"	"	
1,2-Dichloroethane (107-06-2)	U	U		0.25	1.01	"	"	"	
1,1-Dichloroethene (75-35-4)	U	U		0.25	0.99	"	"	"	
cis-1,2-Dichloroethene (156-59-2)	U	U		0.25	0.99	"	"	"	
trans-1,2-Dichloroethene (156-60-5)	U	U		0.25	0.99	"	"	"	
1,2-Dichloropropane (78-87-5)	U	U		0.25	1.16	"	"	"	

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Region 6 Laboratory

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-05 Station ID: SG-22

Batch: B2E1401 Date Collected: 05/08/12 Initial Pressure: 8.5 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	ת	14	A 14-		orting			
Analyte (CAS Number)		esult μg/m³	Analyte Qualifiers	Lir ppbv	mit µg/m³	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		C	0.25	1.14		05/14/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U U		0.25	1.14	1	05/14/12	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane	U	U		0.25	1.75	"	"	"
(76-14-2)								
1,4-Dioxane (123-91-1)	U	U		1.00	3.61	"	"	"
Ethyl acetate (141-78-6)	U	U		0.50	1.81	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.00	1.89	"	"	"
Ethylbenzene (100-41-4)	U	U		0.25	1.09	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.25	1.23	"	"	"
n-Heptane (142-82-5)	U	U		0.25	1.03	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.25	2.67	"	"	"
n-Hexane (110-54-3)	U	U		0.25	0.88	"	"	"
2-Hexanone (591-78-6)	U	U		0.50	2.05	"	"	"
Isopropyl alcohol (67-63-0)	U	U		5.00	12.3	"	"	"
Methylene chloride (75-09-2)	U	U		0.25	0.87	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		0.50	2.05	"	"	"
Methyl methacrylate (80-62-6)	U	U		0.25	1.03	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.25	0.90	"	"	"
Propene (115-07-1)	U	U		0.25	0.43	"	"	"
Styrene (100-42-5)	U	U		0.25	1.07	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.25	1.72	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.05	0.34	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.25	0.74	"	"	"
Toluene (108-88-3)	U	U		0.25	0.94	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.25	1.86	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.25	1.37	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.25	1.37	"	"	"
Trichloroethene (79-01-6)	0.06	0.32	В	0.05	0.27	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.25	1.41	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.25	1.92	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	U	U		0.25	1.23	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.25	1.23	"	"	"
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Region 6 Laboratory

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-05 Station ID: SG-22

Batch: B2E1401 Date Collected: 05/08/12 Initial Pressure: 8.5 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Ro ppbv	esult µg/m³	Analyte Qualifiers		orting mit µg/m³	Dilution	Prepared	Analyzed
Vinyl acetate (108-05-4)	U	U		0.50	1.76	1	05/14/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.05	0.13	"	"	"
meta-/para-Xylene (na)	U	U		0.25	1.09	"	"	"
ortho-Xylene (95-47-6)	U	U		0.25	1.09	"	"	"
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Region 6 Laboratory

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-06 Station ID: SS-2

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 11.8 psia Sample Type: air Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	3.73		93.2	70-130	05/15/12 05/27/12

Targets

	Re	esult	Analyte	Repo Lir	orting nit			
Analyte (CAS Number)	ppbv	\mug/m^3	Qualifiers	ppbv	$\mu g/m^3$	Dilution	Prepared	Analyzed
Acetone (67-64-1)	3.11	7.40		2.50	5.95	1	05/15/12	05/27/12
Acrolein (107-02-8)	U	U		0.50	1.15	"	"	"
Benzene (71-43-2)	0.10	0.32		0.05	0.16	"	"	"
Benzyl chloride (100-44-7)	U	U		0.50	2.59	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.25	0.55	"	"	"
2-Butanone (78-93-3)	4.17	12.3		1.00	2.95	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.25	1.68	"	"	"
Bromoform (75-25-2)	U	U		0.25	2.59	"	"	"
Bromomethane (74-83-9)	U	U		0.25	0.97	"	"	"
Carbon disulfide (75-15-0)	U	U		0.25	0.78	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.25	1.58	"	"	"
Chlorobenzene (108-90-7)	U	U		0.25	1.15	"	"	"
Chlorodibromomethane (124-48-1)	U	U		0.25	2.13	"	"	"
Chloroethane (75-00-3)	U	U		0.25	0.66	"	"	"
Chloroform (67-66-3)	U	U		0.05	0.24	"	"	"
Chloromethane (74-87-3)	U	U		0.25	0.52	"	"	"
Cyclohexane (110-82-7)	U	U		0.25	0.86	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.25	1.93	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.25	1.51	"	"	"
1,3-Dichlorobenzene (541-73-1)	0.48	2.89		0.25	1.51	"	"	"
1,4-Dichlorobenzene (106-46-7)	0.29	1.75		0.25	1.51	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.25	1.24	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.25	1.01	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.25	1.01	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.25	0.99	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.25	0.99	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.25	0.99	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		0.25	1.16	"	"	"

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10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-06 Station ID: SS-2

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 11.8 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	ח	- av 14	A mol-1-		orting			
Analyte (CAS Number)		esult μg/m³	Analyte Qualifiers	Lir ppbv	mit µg/m³	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.25	1.14	1	05/15/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.25	1.14	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.25	1.75	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.00	3.61	"	"	"
Ethyl acetate (141-78-6)	U	U		0.50	1.81	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.00	1.89	"	"	"
Ethylbenzene (100-41-4)	U	U		0.25	1.09	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.25	1.23	"	"	"
n-Heptane (142-82-5)	U	U		0.25	1.03	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.25	2.67	"	"	"
n-Hexane (110-54-3)	U	U		0.25	0.88	"	"	"
2-Hexanone (591-78-6)	U	U		0.50	2.05	"	"	"
Isopropyl alcohol (67-63-0)	65.3	161		25.0	61.6	5	"	05/27/12
Methylene chloride (75-09-2)	U	U		0.25	0.87	1	"	05/27/12
4-Methyl-2-pentanone (108-10-1)	U	U		0.50	2.05	"	"	"
Methyl methacrylate (80-62-6)	U	U		0.25	1.03	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.25	0.90	"	"	"
Propene (115-07-1)	U	U		0.25	0.43	"	"	"
Styrene (100-42-5)	U	U		0.25	1.07	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.25	1.72	"	"	"
Tetrachloroethene (127-18-4)	0.07	0.48		0.05	0.34	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.25	0.74	"	"	"
Toluene (108-88-3)	0.41	1.55		0.25	0.94	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.25	1.86	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.25	1.37	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.25	1.37	"	"	"
Trichloroethene (79-01-6)	U	U		0.05	0.27	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.25	1.41	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.25	1.92	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	0.42	2.07		0.25	1.23	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.25	1.23	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-06 Station ID: SS-2

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 11.8 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)		esult µg/m³	Analyte Qualifiers		orting nit µg/m³	Dilution	Prepared	Analyzed
Vinyl acetate (108-05-4)	U	U		0.50	1.76	1	05/15/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.05	0.13	"	"	"
meta-/para-Xylene (na)	0.39	1.70		0.25	1.09	"	"	"
ortho-Xylene (95-47-6)	U	U		0.25	1.09	"	"	"
								F.

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-07 Station ID: TB-1-Air

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 12.9 psia Sample Type: air Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared Analyzed
Surr: 4-Bromofluorobenzene	3.62		90.5	70-130	05/15/12 05/27/12

Targets

	Reporting Result Analyte Limit							
Analyte (CAS Number)		esult μg/m³	Analyte Qualifiers	Lii ppbv	nit µg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		2.50	5.95	1	05/15/12	05/27/12
Acrolein (107-02-8)	U	U		0.50	1.15	"	"	"
Benzene (71-43-2)	0.10	0.32		0.05	0.16	"	"	"
Benzyl chloride (100-44-7)	U	U		0.50	2.59	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.25	0.55	"	"	"
2-Butanone (78-93-3)	U	U		1.00	2.95	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.25	1.68	"	"	"
Bromoform (75-25-2)	U	U		0.25	2.59	"	"	"
Bromomethane (74-83-9)	U	U		0.25	0.97	"	"	"
Carbon disulfide (75-15-0)	U	U		0.25	0.78	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.25	1.58	"	"	"
Chlorobenzene (108-90-7)	U	U		0.25	1.15	"	"	"
Chlorodibromomethane (124-48-1)	U	U		0.25	2.13	"	"	"
Chloroethane (75-00-3)	U	U		0.25	0.66	"	"	"
Chloroform (67-66-3)	0.09	0.44		0.05	0.24	"	"	"
Chloromethane (74-87-3)	U	U		0.25	0.52	"	"	"
Cyclohexane (110-82-7)	U	U		0.25	0.86	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.25	1.93	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.25	1.51	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		0.25	1.51	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		0.25	1.51	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.25	1.24	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.25	1.01	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.25	1.01	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.25	0.99	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.25	0.99	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.25	0.99	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		0.25	1.16	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-07 Station ID: TB-1-Air

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 12.9 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

	D	esult	Analyte	Repo Lir	orting			
Analyte (CAS Number)		μg/m ³	Qualifiers	ppbv	μg/m³	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.25	1.14	1	05/15/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.25	1.14	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.25	1.75	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.00	3.61	"	"	"
Ethyl acetate (141-78-6)	U	U		0.50	1.81	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.00	1.89	"	"	"
Ethylbenzene (100-41-4)	U	U		0.25	1.09	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.25	1.23	"	"	"
n-Heptane (142-82-5)	U	U		0.25	1.03	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.25	2.67	"	"	"
n-Hexane (110-54-3)	U	U		0.25	0.88	"	"	"
2-Hexanone (591-78-6)	U	U		0.50	2.05	"	"	"
Isopropyl alcohol (67-63-0)	U	U		5.00	12.3	"	"	"
Methylene chloride (75-09-2)	U	U		0.25	0.87	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		0.50	2.05	"	"	"
Methyl methacrylate (80-62-6)	U	U		0.25	1.03	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.25	0.90	"	"	"
Propene (115-07-1)	U	U		0.25	0.43	"	"	"
Styrene (100-42-5)	U	U		0.25	1.07	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.25	1.72	"	"	"
Tetrachloroethene (127-18-4)	0.06	0.41		0.05	0.34	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.25	0.74	"	"	"
Toluene (108-88-3)	U	U		0.25	0.94	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.25	1.86	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.25	1.37	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.25	1.37	"	"	"
Trichloroethene (79-01-6)	0.12	0.65	В	0.05	0.27	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.25	1.41	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.25	1.92	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	U	U		0.25	1.23	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.25	1.23	"	"	"

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-07 Station ID: TB-1-Air

Batch: B2E1504 Date Collected: 05/08/12 Initial Pressure: 12.9 psia Sample Type: air Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Re ppbv	esult µg/m³	Analyte Qualifiers		orting nit µg/m³	Dilution	Prepared	Analyzed
Vinyl acetate (108-05-4)	U	U		0.50	1.76	1	05/15/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.05	0.13	"	"	"
meta-/para-Xylene (na)	U	U		0.25	1.09	"	"	"
ortho-Xylene (95-47-6)	U	U		0.25	1.09	"	"	"
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Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: 4-Bromofluorobenzene	3.73		4.00	93.2	70-130

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Targets

		141900
ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Acetone	U	1.25
Acrolein	U	0.25
Benzene	U	0.02
Benzyl chloride	U	0.25
1,3-Butadiene	U	0.12
2-Butanone	U	0.50
Bromodichloromethane	U	0.12
Bromoform	U	0.12
Bromomethane	U	0.12
Carbon disulfide	U	0.12
Carbon tetrachloride	U	0.12
Chlorobenzene	U	0.12
Chlorodibromomethane	U	0.12
Chloroethane	U	0.12
Chloroform	U	0.02
Chloromethane	U	0.12
Cyclohexane	U	0.12
1,2-Dibromoethane	U	0.12
1,2-Dichlorobenzene	U	0.12
1,3-Dichlorobenzene	U	0.12
1,4-Dichlorobenzene	U	0.12

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Targets (Continued)

		rargets (Continue	_
ANIAL NOTE	Result ppbv	Analyte Reporting Qualifiers Limit	
ANALYTE	ppov		
Dichlorodifluoromethane	U	0.12	
1,1-Dichloroethane	U	0.12	
1,2-Dichloroethane	U	0.12	
1,1-Dichloroethene	U	0.12	
cis-1,2-Dichloroethene	U	0.12	
trans-1,2-Dichloroethene	U	0.12	
1,2-Dichloropropane	U	0.12	
cis-1,3-Dichloropropene	U	0.12	
trans-1,3-Dichloropropene	U	0.12	
1,2-Dichloro-1,1,2,2-tetrafluoroe thane	U	0.12	
1,4-Dioxane	U	0.50	
Ethyl acetate	U	0.25	
Ethyl alcohol	U	0.50	
Ethylbenzene	U	0.12	
1-Ethyl-4-methylbenzene	U	0.12	
n-Heptane	U	0.12	
Hexachlorobutadiene	U	0.12	
n-Hexane	U	0.12	
2-Hexanone	U	0.25	
Isopropyl alcohol	U	2.50	
Methylene chloride	U	0.12	
4-Methyl-2-pentanone	U	0.25	
Methyl methacrylate	U	0.12	
Methyl tertiary-butyl ether	U	0.12	
Propene	U	0.12	
Styrene	U	0.12	
1,1,2,2-Tetrachloroethane	U	0.12	
Tetrachloroethene	U	0.02	
	0		

Report Name: 1205004 FINAL 07 30 12 1155



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Fax:(281)983-2248 Phone:(281)983-2100

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	
Tetrahydrofuran	U	0.12	
Toluene	U	0.12	
1,2,4-Trichlorobenzene	U	0.25	
1,1,1-Trichloroethane	U	0.12	
1,1,2-Trichloroethane	U	0.12	
Trichloroethene	0.02	0.02	
Trichlorofluoromethane	U	0.12	
1,1,2-Trichloro-1,2,2-trifluoroeth ane	U	0.12	
1,2,4-Trimethylbenzene	U	0.12	
1,3,5-Trimethylbenzene	U	0.12	
Vinyl acetate	U	0.25	
Vinyl chloride	U	0.02	
meta-/para-Xylene	U	0.12	
ortho-Xylene	U	0.12	

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: 4-Bromofluorobenzene	4.09		4.00	102	70-130

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets

Result	Analyte Reporting Spike	%REC
ANALYTE ppbv	Qualifiers Limit Level	%REC Limits

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets (Continued)

D 1					
Result			2/552	%REC	
ppbv	Qualifiers Limit	Level	%REC	Limits	
4.89		5.00	97.8	70-130	
4.46		5.00	89.2	70-130	
4.48		5.00	89.6	70-130	
4.47		5.00	89.4	70-130	
4.69		5.00	93.8	70-130	
3.95		5.00	79.0	70-130	
4.50		5.00	90.0	70-130	
5.31		5.00	106	70-130	
4.36		5.00	87.2	70-130	
4.42		5.00	88.4	70-130	
4.65		5.00	93.0	70-130	
4.38		5.00	87.6	70-130	
4.62		5.00	92.4	70-130	
4.73		5.00	94.6	70-130	
4.72		5.00	94.4	70-130	
4.31		5.00	86.2	70-130	
4.53		5.00	90.6	70-130	
4.29		5.00	85.8	70-130	
5.03		5.00	101	70-130	
4.37		5.00	87.4	70-130	
4.93		5.00	98.6	70-130	
4.42		5.00	88.4	70-130	
4.86		5.00	97.2	70-130	
4.68		5.00	93.6	70-130	
4.18		5.00	83.6	70-130	
5.12		5.00	102	70-130	
4.35		5.00	87.0	70-130	
4.44		5.00	88.8	70-130	
	9pbv 4.89 4.46 4.48 4.47 4.69 3.95 4.50 5.31 4.36 4.42 4.65 4.38 4.62 4.73 4.72 4.31 4.53 4.29 5.03 4.37 4.93 4.42 4.86 4.68 4.18 5.12 4.35	ppbv Qualifiers Limit 4.89 4.46 4.48 4.47 4.69 3.95 4.50 5.31 4.36 4.42 4.65 4.38 4.62 4.73 4.72 4.31 4.53 4.29 5.03 4.37 4.93 4.42 4.86 4.68 4.18 5.12 4.35	ppbv Qualifiers Limit Level 4.89 5.00 4.46 5.00 4.48 5.00 4.47 5.00 4.69 5.00 3.95 5.00 4.50 5.00 5.31 5.00 4.36 5.00 4.42 5.00 4.65 5.00 4.38 5.00 4.73 5.00 4.73 5.00 4.31 5.00 4.32 5.00 4.33 5.00 4.37 5.00 4.42 5.00 4.42 5.00 4.42 5.00 4.42 5.00 4.86 5.00 4.18 5.00 5.12 5.00 4.35 5.00	ppbv Qualifiers Limit Level %REC 4.89 5.00 97.8 4.46 5.00 89.2 4.48 5.00 89.6 4.47 5.00 89.4 4.69 5.00 93.8 3.95 5.00 79.0 4.50 5.00 90.0 5.31 5.00 90.0 5.31 5.00 87.2 4.42 5.00 87.2 4.42 5.00 83.0 4.38 5.00 87.6 4.62 5.00 92.4 4.73 5.00 94.6 4.72 5.00 94.4 4.31 5.00 96.2 4.53 5.00 90.6 4.29 5.00 85.8 5.03 5.00 87.4 4.93 5.00 98.6 4.42 5.00 88.4 4.86 5.00 97.2 4.68	ppbv Qualifiers Limit Level %REC Limits 4.89 5.00 97.8 70-130 4.46 5.00 89.2 70-130 4.48 5.00 89.6 70-130 4.47 5.00 89.4 70-130 4.69 5.00 93.8 70-130 3.95 5.00 79.0 70-130 4.50 5.00 90.0 70-130 4.36 5.00 87.2 70-130 4.36 5.00 87.2 70-130 4.42 5.00 88.4 70-130 4.38 5.00 87.6 70-130 4.38 5.00 87.6 70-130 4.72 5.00 92.4 70-130 4.72 5.00 94.6 70-130 4.72 5.00 94.7 70-130 4.53 5.00 90.6 70-130 4.53 5.00 85.8 70-130 4.93

Report Name: 1205004 FINAL 07 30 12 1155



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	%REC	%REC Limits	
n-Heptane	5.30		5.00	106	70-130	
n-Hexane	4.77		5.00	95.4	70-130	
2-Hexanone	4.53		5.00	90.6	70-130	
Isopropyl alcohol	4.54		5.00	90.8	70-130	
Methylene chloride	4.42		5.00	88.4	70-130	
4-Methyl-2-pentanone	4.61		5.00	92.2	70-130	
Methyl tertiary-butyl ether	5.07		5.00	101	70-130	
Propene	4.68		5.00	93.6	70-130	
Styrene	3.96		5.00	79.2	70-130	
Tetrachloroethene	4.40		5.00	88.0	70-130	
Tetrahydrofuran	5.16		5.00	103	70-130	
Toluene	4.67		5.00	93.4	70-130	
1,1,1-Trichloroethane	4.46		5.00	89.2	70-130	
1,1,2-Trichloroethane	4.49		5.00	89.8	70-130	
Trichloroethene	4.33		5.00	86.6	70-130	
Trichlorofluoromethane	4.20		5.00	84.0	70-130	
1,1,2-Trichloro-1,2,2-trifluoroeth ane	4.46		5.00	89.2	70-130	
Vinyl chloride	4.61		5.00	92.2	70-130	
meta-/para-Xylene	8.55		10.0	85.5	70-130	
ortho-Xylene	4.10		5.00	82.0	70-130	

LCS Dup (B2E1401-BSD1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level %	REC	%REC Limits
Surr: 4-Bromofluorobenzene	4.10		4.00	102	70-130

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

LCS Dup (B2E1401-BSD1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets

		Turgets						
	Result	Analyte Reporting	Spike	Source		%REC		RPD
ANALYTE	ppbv	Qualifiers Limit	Level	Result	%REC	Limits	RPD	Limit
Acetone	5.23		5.00		105	70-130	6.72	25
Benzene	4.80		5.00		96.0	70-130	7.34	25
1,3-Butadiene	4.94		5.00		98.8	70-130	9.77	25
2-Butanone	4.80		5.00		96.0	70-130	7.12	25
Bromodichloromethane	5.01		5.00		100	70-130	6.60	25
Bromoform	4.08		5.00		81.6	70-130	3.24	25
Bromomethane	4.57		5.00		91.4	70-130	1.54	25
Carbon disulfide	5.46		5.00		109	70-130	2.79	25
Carbon tetrachloride	4.60		5.00		92.0	70-130	5.36	25
Chlorobenzene	4.49		5.00		89.8	70-130	1.57	25
Chloroethane	4.94		5.00		98.8	70-130	6.05	25
Chloroform	4.73		5.00		94.6	70-130	7.68	25
Chloromethane	4.97		5.00		99.4	70-130	7.30	25
Cyclohexane	4.84		5.00		96.8	70-130	2.30	25
1,2-Dibromoethane	4.79		5.00		95.8	70-130	1.47	25
Dichlorodifluoromethane	4.57		5.00		91.4	70-130	5.86	25
1,1-Dichloroethane	4.89		5.00		97.8	70-130	7.64	25
1,2-Dichloroethane	4.64		5.00		92.8	70-130	7.84	25
1,1-Dichloroethene	5.24		5.00		105	70-130	4.09	25
cis-1,2-Dichloroethene	4.78		5.00		95.6	70-130	8.96	25
trans-1,2-Dichloroethene	5.27		5.00		105	70-130	6.67	25
1,2-Dichloropropane	4.79		5.00		95.8	70-130	8.03	25
cis-1,3-Dichloropropene	5.05		5.00		101	70-130	3.83	25
trans-1,3-Dichloropropene	4.80		5.00		96.0	70-130	2.53	25
1,2-Dichloro-1,1,2,2-tetrafluoroe thane	4.36		5.00		87.2	70-130	4.22	25
1,4-Dioxane	5.29		5.00		106	70-130	3.27	25
Ethyl alcohol	4.12		5.00		82.4	70-130	5.43	25
Ethylbenzene	4.57		5.00		91.4	70-130	2.89	25

Report Name: 1205004 FINAL 07 30 12 1155



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

LCS Dup (B2E1401-BSD1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets (Continued)

		<u> </u>						
ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
n-Heptane	5.08		5.00		102	70-130	4.24	25
n-Hexane	4.80		5.00		96.0	70-130	0.63	25
2-Hexanone	4.80		5.00		96.0	70-130	5.79	25
Isopropyl alcohol	5.77		5.00		115	70-130	23.9	25
Methylene chloride	4.70		5.00		94.0	70-130	6.14	25
4-Methyl-2-pentanone	4.72		5.00		94.4	70-130	2.36	25
Methyl tertiary-butyl ether	5.21		5.00		104	70-130	2.72	25
Propene	4.88		5.00		97.6	70-130	4.18	25
Styrene	4.04		5.00		80.8	70-130	2.00	25
Tetrachloroethene	4.66		5.00		93.2	70-130	5.74	25
Tetrahydrofuran	5.60		5.00		112	70-130	8.18	25
Toluene	4.72		5.00		94.4	70-130	1.06	25
1,1,1-Trichloroethane	4.74		5.00		94.8	70-130	6.09	25
1,1,2-Trichloroethane	4.90		5.00		98.0	70-130	8.73	25
Trichloroethene	4.56		5.00		91.2	70-130	5.17	25
Trichlorofluoromethane	4.65		5.00		93.0	70-130	10.2	25
1,1,2-Trichloro-1,2,2-trifluoroeth ane	4.74		5.00		94.8	70-130	6.09	25
Vinyl chloride	4.86		5.00		97.2	70-130	5.28	25
meta-/para-Xylene	8.85		10.0		88.5	70-130	3.45	25
ortho-Xylene	4.25		5.00		85.0	70-130	3.59	25

Duplicate (B2E1401-DUP1)

Source: 1205004-01 Prepared: 5/14/2012 Analyzed: 5/27/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: 4-Bromofluorobenzene	3.74		4.00	93.5	70-130

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

Duplicate (B2E1401-DUP1)

Source: 1205004-01 Prepared: 5/14/2012 Analyzed: 5/27/2012

Targets

		rargets		
ANALYTE	Result ppbv	Analyte Reporting Spike Qualifiers Limit Level	Source Result	RPD RPD Limit
			Result	
Acetone	U	12,500		25
Benzene	134,000	2,500	136,000	1.86 35
Benzyl chloride	U	2,500		35
1,3-Butadiene	U	1,250		35
2-Butanone	U	5,000		35
Bromodichloromethane	U	1,250		25
Bromoform	U	1,250		25
Bromomethane	U	1,250		35
Carbon disulfide	U	1,250		25
Carbon tetrachloride	U	1,250		35
Chlorobenzene	U	12,500		35
Chlorodibromomethane	U	1,250		25
Chloroethane	U	1,250		35
Chloroform	U	250		35
Chloromethane	U	1,250		35
Cyclohexane	531,000	12,500	562,000	5.58 25
1,2-Dibromoethane	U	1,250		35
1,2-Dichlorobenzene	U	1,250		35
1,3-Dichlorobenzene	U	1,250		35
1,4-Dichlorobenzene	U	1,250		35
Dichlorodifluoromethane	U	1,250		35
1,1-Dichloroethane	U	1,250		35
1,2-Dichloroethane	U	1,250		35
1,1-Dichloroethene	U	1,250		35
cis-1,2-Dichloroethene	U	1,250		35
trans-1,2-Dichloroethene	U	1,250		25
1,2-Dichloropropane	U	1,250		35
cis-1,3-Dichloropropene	U	1,250		35
trans-1,3-Dichloropropene	U	1,250		35
,, =	-	-,		

Report Name: 1205004 FINAL 07 30 12 1155



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

Duplicate (B2E1401-DUP1)

Source: 1205004-01 Prepared: 5/14/2012 Analyzed: 5/27/2012

Targets (Continued)

		raigets (Continued)			
	Result	Analyte Reporting Spike	Source		RPD
ANALYTE	ppbv	Qualifiers Limit Level	Result	RPD	Limit
1,2-Dichloro-1,1,2,2-tetrafluoroe	U	1,250			35
thane					
1,4-Dioxane	U	5,000			25
Ethyl alcohol	U	5,000			25
Ethylbenzene	U	1,250			35
1-Ethyl-4-methylbenzene	U	1,250			35
n-Heptane	2,850	1,250	2,550	11.1	25
Hexachlorobutadiene	U	1,250			35
n-Hexane	38,200	1,250	35,200	8.16	35
2-Hexanone	U	2,500			25
Isopropyl alcohol	U	25,000			25
Methylene chloride	U	12,500			35
4-Methyl-2-pentanone	U	2,500			35
Methyl tertiary-butyl ether	U	1,250			35
Propene	21,400	1,250	19,700	8.04	25
Styrene	U	1,250			35
1,1,2,2-Tetrachloroethane	U	1,250			35
Tetrachloroethene	U	250			35
Tetrahydrofuran	U	1,250			25
Toluene	U	1,250			35
1,2,4-Trichlorobenzene	U	1,250			35
1,1,1-Trichloroethane	U	1,250			35
1,1,2-Trichloroethane	U	1,250			35
Trichloroethene	U	250			35
Trichlorofluoromethane	U	1,250			35
1,1,2-Trichloro-1,2,2-trifluoroeth	U	1,250			35
ane					
1,2,4-Trimethylbenzene	4,250	1,250	4,000	6.06	35
1,3,5-Trimethylbenzene	U	1,250			35

Report Name: 1205004 FINAL 07 30 12 1155



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401 Sample Type: air

Duplicate (B2E1401-DUP1)

Source: 1205004-01 Prepared: 5/14/2012 Analyzed: 5/27/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Spik Qualifiers Limit Leve	e Source l Result	RF RPD Lin	
Vinyl chloride	U	250		3.	5
meta-/para-Xylene	3,550	1,250	3,350	5.80 3	5
ortho-Xylene	U	1,250		3.	5

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1504 Sample Type: air

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC	%REC Limits
Surr: 4-Bromofluorobenzene	3.68		4.00	92.0	70-130

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Targets

	Result	Analyte Reporting
ANALYTE	ppbv	Qualifiers Limit
Acetone	U	1.25
Acrolein	U	0.25
Benzene	U	0.02
Benzyl chloride	U	0.25
1,3-Butadiene	U	0.12
2-Butanone	U	0.50
Bromodichloromethane	U	0.12
Bromoform	U	0.12
Bromomethane	U	0.12
Carbon disulfide	U	0.12
Carbon tetrachloride	U	0.12
Chlorobenzene	U	0.12
Chlorodibromomethane	U	0.12
Chloroethane	U	0.12
Chloroform	U	0.02
Chloromethane	U	0.12
Cyclohexane	U	0.12
1,2-Dibromoethane	U	0.12
1,2-Dichlorobenzene	U	0.12
1,3-Dichlorobenzene	U	0.12
1,4-Dichlorobenzene	U	0.12
·	_	

Report Name: 1205004 FINAL 07 30 12 1155

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Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1504 Sample Type: air

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Targets (Continued)

		Analytan	
ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	
Dichlorodifluoromethane	U	0.12	
1,1-Dichloroethane	U	0.12	
1,2-Dichloroethane	U	0.12	
1,1-Dichloroethene	U	0.12	
cis-1,2-Dichloroethene	U	0.12	
trans-1,2-Dichloroethene	U	0.12	
1,2-Dichloropropane	U	0.12	
cis-1,3-Dichloropropene	U	0.12	
trans-1,3-Dichloropropene	U	0.12	
1,2-Dichloro-1,1,2,2-tetrafluoroe	U	0.12	
thane 1,4-Dioxane	**	0.50	
·	U		
Ethyl acetate	U	0.25	
Ethyl alcohol	U	0.50	
Ethylbenzene	U	0.12	
1-Ethyl-4-methylbenzene	U	0.12	
n-Heptane	U	0.12	
Hexachlorobutadiene	U	0.12	
n-Hexane	U	0.12	
2-Hexanone	U	0.25	
Isopropyl alcohol	U	2.50	
Methylene chloride	U	0.12	
4-Methyl-2-pentanone	U	0.25	
Methyl methacrylate	U	0.12	
Methyl tertiary-butyl ether	U	0.12	
Propene	U	0.12	
Styrene	U	0.12	
1,1,2,2-Tetrachloroethane	U	0.12	
Tetrachloroethene	U	0.02	

Report Name: 1205004 FINAL 07 30 12 1155



Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1504 Sample Type: air

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	
Tetrahydrofuran	U	0.12	
Toluene	U	0.12	
1,2,4-Trichlorobenzene	U	0.12	
1,1,1-Trichloroethane	U	0.12	
1,1,2-Trichloroethane	U	0.12	
Trichloroethene	U	0.02	
Trichlorofluoromethane	U	0.12	
1,1,2-Trichloro-1,2,2-trifluoroeth ane	U	0.12	
1,2,4-Trimethylbenzene	U	0.12	
1,3,5-Trimethylbenzene	U	0.12	
Vinyl acetate	U	0.25	
Vinyl chloride	U	0.02	
meta-/para-Xylene	U	0.12	
ortho-Xylene	U	0.12	

Report Name: 1205004 FINAL 07 30 12 1155

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10625 Fallstone Road, Houston, TX 77099 hone:(281)983-2100 Fax:(281)983-2248 Phone:(281)983-2100

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USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD Site #: 06MB

No: 6-051012-000807-0008

DateShipped: 5/11/2012

Lab: U.S. EPA Region 6 Laboratory Sample Control

Lab Contact: Christy Warren Lab Phone: 281-983-2137

CarrierName: FedEx AirbillNo: 7935 3051 6201

Collected For Lab Use Station Tag/Preservative/Bottles Analysis/Turnaround Coll. Sample # Matrix/Sampler Location Method 05/08/2012 17:16 SG-14 6-474159 (None) (1) TO-15(21) Grab SG-14 Air/ Jose Flores Shipment for Case Complete? Y

Samples Transferred From Chain of Custody # Special Instructions: Possibly not enough volume recovered to run analysis, possibly due to tight clay formation.

Analysis Key: TO-15=TO-15

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	A. Rom	= 0.3	Cwanen	5/11/12	9:15						
_	yearres	5-11-12	- C Willer I	114/10	110						
	/										+
											_



Environmental Protection Agency Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248 Page 1 of 1

USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 6-051012-232918-0014

DateShipped: 5/11/2012

Site #: 06MB

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

CarrierName: FedEx AirbillNo: 7935 3051 8351

Sample #	Matrix/Sampler	Coll. Method	Analysis	Turnaroun	d	Tag/Preservativ	e/Bottles	Stat		Collected		ab Use nly
SG-19	Air/ Jose Flores	Grab	TO	-15(21)		6-474158 (No	ne) (1)	SG	-19	05/09/2012 18:43		
											-	
											-	
									1			
1												
					Shipment for Case Complete? Y							
pecial Instruction	ons:							Samples Transferred From Chain of Custody #				
nalysis Key: TO	D-15=TO-15											
Items/Reason	Relinquished b	y Date	Received by	Date	Time	Items/Reason	Relinquishe	ed By	Date	Received by	Date	Tim
	11/11		CWaven	-1								

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	(ma too	5-11-12	CWaven	5/14/12	9:15						
	July 200		000000	11.110	1.12						



Laboratory Environmental Protection Agency Region

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

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USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 6-051012-233352-0015

DateShipped: 5/11/2012 CarrierName: FedEx

AirbillNo: 7935 3052 0101

Site #: 06MB

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

Sample #	Matrix/Sampler	Coll. Method	Analysis/T	urnaround		Tag/Preservative	e/Bottles	Station Location	Collected	For Lab	
			TO 1	E/04\		6-474163 (Nor	ne) (1)	SG-19-D	05/09/2012 18:43		
SG-19-D	Air/ Jose Flores	Grab	10-1	5(21)		0474100 (110)	(a) (t)				
								-			
								1			
1											
									21274200		
								Shipment	for Case Complete? Y	- Countral	
Special Instructi	ons:							Samples T	ransferred From Chair	1 of Custou	y #
Analysis Key: To	0.16=TO-15										
Analysis Key. 11	0-13-10-13		*				B 2 31.	d Bv Da	te Received by	Date	Tin
Items/Reasor	n Relinquished	by Date	Received by	Date	Time	Items/Reason	Relinquishe	d By Da	te Received by	Date	1.11
	Manhore	2-11-12	CWaven	5/14/12	9:15						-
	yay see	- 3.00	0.00.000	11:11:							
	//										+



Laboratory **Environmental Protection Agency** Region

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

Page 1 of 1

USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD Site #: 06MB

No: 6-051012-000102-0006

DateShipped: 5/11/2012

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

CarrierName: FedEx AirbillNo: 7983 6108 5155 Lab Phone: 281-983-2137

Sample #	Matrix/Sampler	Coll. Method	Analysis/T	urnaround	1	Tag/Preservative	e/Bottles	Station		Collected	For Lal	
			70.4	10/04/		6-474161 (Nor	(A) (a)	SG-21		05/08/2012 14:29		
SG-21	Air/ Jose Flores	Grab	10-1	15(21)		0-474101 (1401	16) (1)	00 2				
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									-			
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										ise Complete? Y		
Cascial Instruct	ions: A possible leak	at FA's connec	tion to the Summa ca	anister may	of occurred	during sample recov	ery.	Sample	s Transf	erred From Chain	of Custod	y #
орестат пізичен	ions. A possible leak	at Live out it is										
	0.45-T0.45											
Analysis Key: T	0-15-10-15		-6-									
	n Relinguished	by Date	Received by	Date	Time	Items/Reason	Relinquishe	ed By	Date	Received by	Date	Tim
Items/Reaso					MEMES:		1					
	11 /20	x 11 17	- C Waven	5/who	0.15							
	Jase Clas	D 5-11-16	- Cwamer	-114110	-1.10			-				
	1											
	,								-			+
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Laborator Environmental Protection Agency Region

10625 Fallstone Road, Houston, TX 77099 hone:(281)983-2100 Fax:(281)983-2248 Phone: (281)983-2100

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USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 6-051012-000259-0007

DateShipped: 5/11/2012 CarrierName: FedEx

AirbillNo: 7935 3051 2879

Site # 06MB

Lab: U.S. EPA Region 6 Laboratory Sample Control

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
SG-22	Air/ Jose Flores	Grab	TO-15(21)	6-474162 (None) (1)	SG-22	05/08/2012 15:29	
					-		
					1		
,							

Shipment for Case Complete? Y Special Instructions: A leak was identifed at the EA connection to the Summa canister during sample collection. Samples Transferred From Chain of Custody # Analysis Key: TO-15=TO-15

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	Charles Lors	5-11-12	Cwanen	5/14/12	9:15						
	July 29	7.11.11	0 000000	11 1110	1:1-						
											-



Laboratory Environmental Protection Agency Region

10625 Fallstone Road, Houston, TX 77099 hone:(281)983-2100 Fax:(281)983-2248 Phone: (281)983-2100

Page 1 of 1 USEPA CLP Generic COC (LAB COPY) DateShipped: 5/11/2012 CarrierName: FedEx AirbillNo: 7983 6108 1447

CHAIN OF CUSTODY RECORD

Site #: 06MB

No: 6-050912-234855-0004

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren Lab Phone: 281-983-2137

illNo: 7983 61		Coll.	Analysis/Tu	rnaround		Tag/Preservative/Bo	ttles	Station	n	Collected	For Lab Only	
Sample #	Matrix/Sampler	Method	***************************************				41	SS-2	0	5/08/2012 16:19		
			TO-15	(21)		6-474160 (None) (1)	90.11				
SS-2	Air/ Jose Flores	Grab							-			
												_
	1											
		-										
								-				
					-						+	
											-	
								1				
		-										
/												
											-	
								Shipn	ent for Ca	ase Complete? Y		
								Comm	loe Trans	ferred From Chair	of Custod	y #
Special Instru			*									
Analysis Key:	TO-15=TO-15						Relinquish	ed By	Date	Received by	Date	Tir
		d by Date	Received by	Date	Time	Items/Reason	Kemidaisi	00.0)				
Items/Reas	son Relinquishe	d by Date	12 C Waven	-11								
	11 /11		Chlouse	5/11/12	9:15							T
	better	2 5-11-20	12 C Warren	119/10	112							
_	1										-	-
	1											
								_				
						+						



Laboratory Environmental Protection Agency Region

10625 Fallstone Road, Houston, TX 77099 hone:(281)983-2100 Fax:(281)983-2248 Phone: (281)983-2100

Page 1 of 1

CHAIN OF CUSTODY RECORD

No: 6-050912-235753-0005

USEPA CLP Generic COC (LAB COPY)

DateShipped: 5/11/2012

CarrierName: FedEx

Site #: 06MB

Lab. U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

Sample #	Matrix/Sampler	Coll.	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
		Method		6-474164 (None) (1)	TB-1-Air	05/08/2012 18:00	
TB-1-Air	Air/ Jose Flores	Grab	TO-15(21)	0-4/4/04 (((0)(0) (1)			
							-
	-						
					1		
							-
/							

Shipment for Case Complete? Y Samples Transferred From Chain of Custody # Special Instructions:

Analysis Key: TO-15=TO-15

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Tin
	(Ana	5-11-12	Culauen	5/14/10	9:15						H
	The sex	J 1: 12		"							



SWITED STATES

Environmental Protection Agency

Region 6 Laboratory

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Notes and Definitions

J The identification of the analyte is acceptable; the reported value is an estimate.

B Blank Related - The concentration found in the sample was less than 10X the concentration found in the

associated extraction, digestion and/or analysis blank. Presence in the sample is therefore suspect.

A This sample was extracted at a single acid pH.

HTS Sample was prepared and/or analyzed past recommended holding time. Concentrations should be

considered minimum values.

AES Atomic Emission Spectrometer

CVAA Cold Vapor Atomic Absorption

ECD Electron Capture Detector

GC Gas Chromatograph

GFAA Graphite Furnace Atomic Absorption

ICP Inductively Coupled Plasma

MS Mass Spectrometer

NA Not Applicable

NPD Nitrogen Phosphorous Detector

NR Not Reported

TCLP Toxicity Characteristic Leaching Procedure

U Undetected

Out of QC limits

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds *per* square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.

Report Name: 1205004 FINAL 07 30 12 1155



Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.

Report Name: 1205004 FINAL 07 30 12 1155

Page 44 of 44

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 6 HOUSTON BRANCH 10625 FALLSTONE RD. HOUSTON, TEXAS 77099

July 16, 2012

MEMORANDUM

		•
SUBJECT: FROM:	Raymon	Laboratory Program Data Review d Flores, Alternate ESAT Regional Project Officer mental Services Branch (6MD-HL)
TO:	Chris Vi	llarreal, Superfund Project Manager (6SF-RA)
	Site:	R&H OIL/TROPICANA
	Case#:	42498
	SDG#:	F5MP0

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6 10625 Fallstone Road Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE:

July 16, 2012

TO:

Marvelyn Humphrey, ESAT PO, Region 6 EPA

FROM:

Tseng-Ying Fan, Data Reviewer, ESAT

THRU:

Dominic G. Jarecki, ESAT Program Manager, ESAT $\rho6J$

SUBJECT:

CLP Data Review

Contract No.:

EP-W-06-030

TO No.:

030

Task/Sub-Task:

2-11 B030-211-0025

ESAT Doc. No.:

6-12-368B

TDF No.:

0-0882

ESAT File No.:

0-0882

Attached is the data review summary for Case # 42498

SDG # F5MP0

Site R & H Oil/Tropicana

COMMENTS:

I. LEVEL OF DATA REVIEW

Region 6 Standard Review was performed for this data package.

II. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

The CCS and hardcopy review found the data package contractually compliant.

III. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

Some results were qualified because of technical problems, and the significant problems are listed below.

- A. Seven TVOA and two TVOA-SIM samples had poor DMC performance.
- B. Two reported TVOA analytes had questionable identification.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

HOUSTON BRANCH 10625 FALLSTONE ROAD

HOUSTON, TEXAS 77099

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 42498	SITE R & H Oil/Tropicana
LABORATORY A4	NO. OF SAMPLES 17
CONTRACT# EP-W-10-018	MATRIX Water
SDG# F5MP0	REVIEWER (IF NOT ESB) ESAT
SOW# SOM01.2/MA1359.6 & MA1859.1	REVIEWER'S NAME Tseng-Ying Fan
SF# 303DD2MB	COMPLETION DATE July 16, 2012
SAMPLE NO. F5MP0 F5MP4 F5MP1 F5MP5 F5MP2 F5MP6 F5MP3 F5MP7	F5MP8 F5MQ4 F5MQ8 F5MP9 F5MQ5 F5MQ0 F5MQ6 F5MQ1 F5MQ7
	r Singr r Singr
DATA ASSESSN	MENT SUMMARY
	TVOA TVOA BNA BMA
	SIM SIM
· ·	
1. HOLDING TIMES	<u> </u>
2. GC/MS TUNE/INSTR. PERFORM.	0 0 0 0
3. CALIBRATIONS	M M O O M O O O M M O O
4. BLANKS	M M O O
5. DMC/SURROGATES	<u>M</u> <u>M</u> O
6. MATRIX SPIKE/DUPLICATE/LCS	$\overline{N/A}$ $\overline{N/A}$ $\overline{N/A}$ $\overline{N/A}$
7. OTHER QC	$\frac{1}{N/A}$ $\frac{1}{N/A}$ $\frac{1}{N/A}$ $\frac{1}{N/A}$
8. INTERNAL STANDARDS	0 0 0 0
9. COMPOUND ID/QUANTITATION	$\begin{array}{c cccc} O & O & O & O \\ \hline M & O & O & O \end{array}$
10. PERFORMANCE/COMPLETENESS	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N
11. OVERALL ASSESSMENT	$\frac{O}{M}$ $\frac{O}{M}$ $\frac{O}{O}$
TI. OAMWAN UOONOONINI	11 0

- O = Data had no problems.
- M = Data qualified because of major or minor problems.
- Z = Data unacceptable.
- NA = Not applicable.

ACTION ITEMS:

AREA OF CONCERN: TVOA Vinyl chloride, bromomethane, and carbon tetrachloride failed the technical %D or minimum RRF calibration criteria. The concentrations exceeded the upper instrument calibration limit for three reported analytes. Laboratory/field contamination affected four results. Seven samples had outlying DMC recoveries. Two reported analytes had questionable identification. TVOA-SIM The instrument had poor sensitivity for 1,2-dibromo-3-chloropropane. Samples F5MP9 and F5MQ8 had poor DMC performance.

COMMENTS/CLARIFICATIONS REGION 6 CLP QA REVIEW

CASE 42498 SDG F5MP0 SITE R & H Oil/Tropicana LAB A4

COMMENTS: This SDG consisted of 17 water samples for organics analysis following CLP SOW SOM01.2. With the exception of sample F5MQ4, the samples required TVOA and TVOA-SIM analyses. Samples F5MQ4, F5MP0, F5MP1, F5MP2, and F5MP3 required BNA and BNA-SIM analyses. The TVOA samples are subject to Modified Analysis Request 1359.6 (MA1359.6), which requires the analysis of 18 additional target compounds, including BNA TCL compounds naphthalene and hexachlorobutadiene. The BNA samples are subject to Modified Analysis Request 1859.1 (MA1859.1), which requires the analysis of two additional target compounds. The COC Records designated samples F5MQ5 and F5MQ6 as trip blanks and samples F5MQ7 and F5MQ8 as field blanks. No sample was designated for MS/MSD analyses.

Region 6 Standard Review was performed for this package as requested by the TDF. The target compounds of concern and action levels are listed on pages 118 to 121 of this report. Please note that the reported CRQLs were higher than the action levels for some compounds of concern for many samples because of method limitation or sample dilution. Some target compounds of concern were reported at concentrations over the action levels for TVOA samples F5MPO, F5MP1, F5MP2, F5MP3, and F5MP6 and BNA samples F5MPO, F5MP3, and F5MQ4.

For the target compounds with both the full scan and SIM analysis results available, the SIM analysis results are designated for use unless the corresponding full scan analysis reported results ≥CRQLs. One exception is that the full scan QL for 1,2-dibromo-3-chloropropane was designated for use for TVOA samples F5MPO, F5MP1, F5MP3, and F5MP6 because poor instrument sensitivity rendered the corresponding SIM analysis QL unusable. With the exception of sample F5MQ4, naphthalene and hexachlorobutadiene were target compounds for both the TVOA (MA1359.6) and BNA methods, and the reviewer designated for use the TVOA analysis results to achieve lower QL.

TVOA Many samples had outlying DMC recoveries, but the reviewer could not assess the impact on the results for the additional compounds requested by MA1359.6 because the association of these compounds with DMCs was unavailable to the reviewer.

Samples F5MP0, F5MP1, F5MP2, F5MP3, and F5MP6 were initially analyzed at 25X dilution followed by reanalysis at additional dilution because of extremely high TCL concentrations.

TVOA-SIM Samples F5MP4, F5MP5, F5MP8, F5MP9, F5MQ0, and F5MQ8 were reanalyzed because of poor DMC performance. The reanalyses repeated the problem, demonstrating matrix effect. The original analysis results are designated for use to minimize data qualification. Samples F5MP0, F5MP1, F5MP3, and F5MP6 were only analyzed at 25X dilution because of high matrix levels.

ORGANIC QA REVIEW CONTINUATION PAGE

CASE 42498 SDG F5MPO SITE R & H Oil/Tropicana LAB A4

BNA/BNA-SIM Most of the samples were initially analyzed at dilution with some followed by further dilution because of high TCL concentration or matrix level. BNA-SIM samples F5MP2 and F5MP3 were reanalyzed because of poor IS performance, and the reanalyses confirmed matrix effect. The original analysis results are designated for use.

DATA ASSESSMENT: The QC problems affecting data usability are addressed below.

TVOA

- The samples were preserved with acid as indicated by the pH values reported by the laboratory. Please note that polymerization of vinyl chloride and styrene is likely to occur in acid-preserved samples and could cause low-biased results for these two compounds.
- The reviewer qualified the results for the following compounds as estimated because these compounds failed the technical %D criteria for the associated opening CCV:

vinyl chloride in all samples and

carbon tetrachloride in samples F5MP4, F5MP5, F5MP6DL, F5MP8, F5MP9, and F5MQ1.

- The reviewer qualified as estimated the results for methylcyclohexane and 1,2,4-trimethylbenzene in sample F5MPO and o-xylene in sample F5MPO because the concentrations exceeded the upper instrument calibration limit. These analytes were diluted below the sample quantitation limits in the diluted reanalyses.
- Bromomethane did not meet the technical minimum RRF criteria for the low point IC. Since the IC raw data demonstrated the instrument sensitivity at the CRQL, the reviewer did not reject the associated non-detect results. Instead, the reviewer qualified the bromomethane QLs as estimated and biased low for all samples because raw data for the associated CCVs indicated a significant loss of instrument sensitivity for bromomethane. In the reviewer's opinion, the actual QL was 10X the reported value for bromomethane.
- Because of possible laboratory contamination, the laboratory "B"-flagged methylene chloride results <CRQLs should be considered undetected and were flagged "U" at the CRQLs on the DST.

ORGANIC QA REVIEW CONTINUATION PAGE

CASE 42498 SDG F5MPO SITE R & H Oil/Tropicana LAB A4

- Because of possible laboratory contamination, the reviewer qualified the laboratory "B"-flagged methylene chloride result >CRQL as undetected ("U"-flagged) for sample F5MQ6 and the reported concentration should be used as a raised QL ("M"-flagged).
- Because of possible field/shipping contamination, results <CRQLs for the following compounds should be considered undetected and were flagged "U" at the CRQLs on the DST:

toluene and m,p-xylene in sample F5MP1, toluene in sample F5MP2, and

naphthalene in sample F5MP5.

- Because of possible field contamination, the naphthalene results >CRQLs for the following samples were qualified as undetected ("U"-flagged) and the reported concentrations should be used as raised QLs ("M"-flagged): F5MP7, F5MP8, and F5MQ0.
- The reviewer qualified the trichloroethene, tetrachloroethene, ethylbenzene, and isopropylbenzene results >CRQLs as estimated and biased high for sample F5MP8 because the associated VDMC9 recovery exceeded the QC limit.
- Sample F5MP6 had an extremely low VDMC6 recovery (<10%), rendering associated non-detect results unusable. To maximize data usability, the reviewer recommends that the results associated with VDMC6 be taken from the diluted reanalysis (with an acceptable VMDC6 recovery) for this sample.
- The following samples had DMC recoveries below the QC limits, so the reviewer qualified as estimated and biased low the analyte results associated with these DMCs as listed below.

Sample $_$	DMC	
F5MP0	VDMC1,	VDMC3
F5MP4	VDMC10	
F5MP7	VDMC13	
F5MP8	VDMC10	
F5MQ1	VDMC10	
F5MQ6	VDMC13	
F5MQ7	VDMC13	

• The tert-butylbenzene spectra submitted for sample F5MP6 did not meet the relative intensity compound identification criteria, so the reviewer qualified the tert-butylbenzene identification as tentative for this sample, pending laboratory verification.

ORGANIC QA REVIEW CONTINUATION PAGE

CASE 42498 SDG F5MP0 SITE R & H Oil/Tropicana LAB A4

• The reviewer qualified the 1,2,4-trimethylbenzene identification as tentative for sample F5MP8 because of questionable RT, pending laboratory verification.

TVOA-SIM

- The instrument had poor sensitivity for 1,2-dibromo-3-chloropropane as demonstrated by the manual integration data submitted for the calibration standards. The raw data for one closing CCV showed that the instrument had difficulty detecting this analyte in the associated samples. Instead of rejecting the affected non-detect results, the reviewer recommends that the QL from the full scan analysis be taken for 1,2-dibromo-3-chloropropane for samples F5MP0, F5MP1, F5MP3, and F5MP6. The reviewer flagged the results in the DST accordingly. The poor instrument sensitivity also affected other samples to a lesser extent. The reviewer qualified the 1,2-dibromo-3-chloropropane QLs for the rest of the TVOA-SIM samples as estimated and biased low, and the actual QL was 10X the reported value in the reviewer's opinion.
- The reviewer qualified as estimated and biased low the 1,2-dibromoethane result for sample F5MP9 and the 1,2-dibromo-3-chloropropane result for sample F5MQ8 because the associated DMCs had recoveries below the QC limits.

BNA

Because of possible laboratory contamination, the laboratory "B"-flagged diethylphthalate and di-n-butylphthalate results <CRQLs for sample F5MP2 should be considered undetected and were flagged "U" at the CRQLs on the DST.

OVERALL ASSESSMENT: Some results were qualified for all TVOA and 12 TVOA-SIM samples because of problems with calibration, laboratory/field/shipping contamination, DMC recovery, and/or compound identification. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

In response to the CCS, the laboratory submitted the calibration form and raw data for the additional target compounds requested by MA1359.6. The reviewer repaginated the resubmitted data to go with the original data package. The resubmitted pages are placed at the beginning of the data package and should be inserted into the CSF package.

The laboratory was contacted for several CSF and reporting issues (see Resubmission Request). The laboratory response is likely to affect the DST.

ORGANIC ACRONYMS

%D Percent Difference

RSD Percent Relative Standard Deviation

ARO Aroclors

BRA 4-Bromofluorobenzene
BNA Base/Neutral and Acid

CADRE Computer-Aided Data Review and Evaluation

CCS Contract Compliance Screening

CCV Continuing Calibration Verification

CF Calibration Factor

CRQL Contract Required Quantitation Limit

CSF Complete SDG File DCB Decachlorobiphenyl

DFTPP Decafluorotriphenylphosphine
DMC Deuterated Monitoring Compound

DST Data Summary Table

GC/ECD Gas Chromatograph/Electron Capture Detector

GC/MS Gas Chromatograph/Mass Spectrometer

GPC Gel Permeation Chromatography

INDA(B,C) Individual Standard Mixture A(or B or C)

IS Internal Standard

LCS Laboratory Control Sample

LMVOA Low/Medium Volatile Organic Analysis MS/MSD Matrix Spike/Matrix Spike Duplicate

NFG National Functional Guidelines

OTR/COC Organic Traffic Report/Chain of Custody

PAH Polynuclear Aromatic Hydrocarbon

PE Performance Evaluation

PEM Performance Evaluation Mixture

PEST Pesticides

QA Quality Assurance QC Quality Control QL Quantitation Limit

RIC Reconstructed Ion Chromatogram
RPD Relative Percent Difference
RRF Relative Response Factor
RRT Relative Retention Time

RSCC Regional Sample Control Center

RT Retention Time

SDG Sample Delivery Group

SDMC Semivolatile Deuterated Monitoring Compound

SIM Selected Ion Monitoring
SMO Sample Management Office

SOW Statement of Work

SQL Sample Quantitation Limit SVOA Semivolatile Organic Analysis

TCL Target Compound List TCX Tetrachloro-m-xylene

TIC Tentatively Identified Compound TVOA Trace Volatile Organic Analysis

VDMC Volatile Deuterated Monitoring Compound

VOA Volatile Organic Analysis

ORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

- U Not detected at reported quantitation limit.
- N Identification is tentative.
- J Estimated value.
- L Reported concentration is below the CRQL.
- M Reported concentration should be used as a raised quantitation limit because of interferences and/or laboratory contamination.
- R Unusable.
- ^ High biased. Actual concentration may be lower than the concentration reported.
- v Low biased. Actual concentration may be higher than the concentration reported.
- F+ A false positive exists.
- F- A false negative exists.
- UJ Estimated quantitation limit.
- T Identification is questionable because of absence of other commonly coexisting pesticides.
- C Identification of pesticide or aroclor has been confirmed by Gas Chromatography/Mass Spectrometer (GC/MS).
- X Identification of pesticide or aroclor could not be confirmed by GC/MS when attempted.
- * Result not recommended for use because of associated QA/QC performance inferior to that from other analysis.

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP0	
STATION LOCATION		MW-14	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJv
Bromomethane	13	13	UJv
Chloroethane	13	13	υ
Trichlorofluoromethane	13	13	[U
1,1-Dichloroethene	13	13	UJv
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13 .	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U .
trans-1,2-Dichloroethene	13	13	UJv
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	UJV
2-Butanone	130	130	U -
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	1200	*
Carbon tetrachloride	13	13	U
Benzene	13	9900	*
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	600	J
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	10000	· *
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	Įυ
2-Hexanone	130	190	
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Case No.:

42498

SDG:

Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	*	F5MP0	
STATION LOCATION		MW-14	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	13	1300	*
o-Xylene	13	2800	*
m,p-Xylene	13	6800	*
Styrene	13	13	Įυ
Bromoform	13	13	U
Isopropylbenzene	13	75	
1,1,2,2-Tetrachloroethane	13	13 .	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	υ
1,3-Dichloropropane	13	13	Įυ
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	13	ļU
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	400	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	240	
n-Propylbenzene	13	94	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	1000	J
Bromobenzene	13	13	U .

Volume (ml):

25

Dilution Factor:

25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP0DL	
STATION LOCATION		MW-14	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	1300	1300	U *
Chloromethane	1300	1300	Ū *
Vinyl chloride	1300	1300	U *
Bromomethane	1300	1300	U *
Chloroethane	1300	1300	U *
Trichlorofluoromethane	1300	1300	U * `
1,1-Dichloroethene	1300	1300	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	1300	1300	Ū *
Acetone	13000	13000	U *
Carbon Disulfide	1300	1300	U *
Methyl acetate	1300	1300	υ *
Methylene chloride	1300	1300	U *
trans-1,2-Dichloroethene	1300	1300	U *
Methyl tert-butyl ether	1300	1300	U *
1,1-Dichloroethane	1300	1300	U *
cis-1,2-Dichloroethene	1300	1300	U *
2-Butanone	13000	13000	U *
Bromochloromethane	1300	1300	U *
Chloroform	1300	1300	ย *
1,1,1-Trichloroethane	1300	1300	U *
Cyclohexane	1300	1400	
Carbon tetrachloride	1300	1300	U *
Benzene	1300	26000	
1,2-Dichloroethane	1300	1300	U *
Trichloroethene	1300	1300	U *
Methylcyclohexane	1300	1300	u *
1,2-Dichloropropane	1300	1300	U *
Bromodichloromethane	1300	1300	U *
cis-1,3-Dichloropropene	1300	1300	U *
4-Methyl-2-pentanone	13000	13000	U *
Toluene	1300	24000	
trans-1,3-Dichloropropene	1300	1300	U *
1,1,2-Trichloroethane	1300	1300	U *
Tetrachloroethene	1300	1300	U *
2-Hexanone	13000	13000	U *
Dibromochloromethane	1300	1300	U *
1,2-Dibromoethane	1300	1300	U *
Chlorobenzene	1300	1300	U *

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MP0DL	
STATION LOCATION		MW-14	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	1300	1100	LJ
o-Xylene	1300	2500	
m,p-Xylene	1300	7300	
Styrene	1300	1300	U *
Bromoform	1300	1300	Ū *
Isopropylbenzene	1300	1300	U *
1,1,2,2-Tetrachloroethane	1300	1300	U *
1,3-Dichlorobenzene	1300	1300	ุบ *
1,4-Dichlorobenzene	1300	1300	U *
1,2-Dichlorobenzene	1300	1300	U *·
1,2-Dibromo-3-chloropropane	1300	1300	U *
1,2,4-Trichlorobenzene	1300	1300	U *
1,2,3-Trichlorobenzene	1300	1300	U *
1,3-Dichloropropane	1300	1300	U *
n-Butylbenzene	1300	1300	U *
sec-Butylbenzene	1300	1300	U *
tert-Butylbenzene	1300	1300	U *
2-Chlorotoluene	1300	1300	U *
4-Chlorotoluene	1300	1300	U *
Dibromomethane	1300	1300	U *
1,3,5-Trimethylbenzene	1300	1300	U *
2,2-Dichloropropane	1300	1300	U *
1,1-Dichloropropene	1300	1300	U *
Hexachlorobutadiene	1300	1300	U *
p-Isopropyltoluene	1300	1300	U *
Naphthalene	1300	710	*
n-Propylbenzene	1300	1300	U *
1,1,1,2-Tetrachloroethane	1300	1300	U *
1,2,3-Trichloropropane	1300	1300	U *
1,2,4-Trimethylbenzene	1300	1300	U *
Bromobenzene	1300	1300	U *

Volume (ml):

25

Dilution Factor:

2500

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.	1	F5MP0 (SIN	1)
STATION LOCATION		MW-14	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml):

25

Dilution Factor:

25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP1	- 1
STATION LOCATION		MW-16	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	Ü
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U ·
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	220	
Carbon tetrachloride	13	13	U
Benzene	13	1600	*
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	200	
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	13	U
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	υ

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP1		
STATION LOCATION		MW-16	1
-	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	13	2.9	LJ
o-Xylene	13	3.0	LJ
m,p-Xylene	13	13	U
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	14	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U ·
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	Ü
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	U
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	\U '
tert-Butylbenzene	13 ·	13	U
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	13	U
2,2-Dichloropropane	13	13	Įυ
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-isopropyltoluene	13	13	U
Naphthalene	13	17	
n-Propylbenzene	13	17	I
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	3.6	LJ
Bromobenzene	13	13	U

Volume (ml):

25

Dilution Factor:

25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MP1DL	
STATION LOCATION		MW-16	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	130	130	U *
Chloromethane	130	130	U *
Vinyl chloride	130	130	U *
Bromomethane	130	130	U *
Chloroethane	130	130	U *.
Trichlorofluoromethane	130	130	U *
1,1-Dichloroethene	130	130	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	130	130	U *
Acetone	1300	1300	U *
Carbon Disulfide	130	130	U *
Methyl acetate	130	130	U *
Methylene chloride	130	130	Ú *
trans-1,2-Dichloroethene	130	130	U *
Methyl tert-butyl ether	130	130	U *
1,1-Dichloroethane	130 .	130	U *
cis-1,2-Dichloroethene	130	130	U * .
2-Butanone	1300	1300	U *
Bromochloromethane	130	130	U *
Chloroform	130	130	U *
1,1,1-Trichloroethane	130	130	U *
Cyclohexane	130	230	*
Carbon tetrachloride	130	130	U * ·
Benzene	130	1800	
1,2-Dichloroethane	130	130	U *
Trichloroethene	130	130	U *
Methylcyclohexane	130	210	*
1,2-Dichloropropane	130	130	U *
Bromodichloromethane	130	130 .	U * -
cis-1,3-Dichloropropene	130	130	U *
4-Methyl-2-pentanone	1300	1300	U *
Toluene	130	130	U *
trans-1,3-Dichloropropene	130	130	U *
1,1,2-Trichloroethane	130	130	Ū*
Tetrachloroethene	130	130	U *
2-Hexanone	1300	1300	U *
Dibromochloromethane	130	130	U *
1,2-Dibromoethane	130	130	U *
Chlorobenzene	130	130	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MP1DL	
STATION LOCATION		MW-16	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	130	130	U *
o-Xylene	130	130	U *
m,p-Xylene	130	130	U *
Styrene	130	130	U *
Bromoform	130	130	U *
isopropylbenzene	130	130	U* (
1,1,2,2-Tetrachloroethane	130	130	U *
1,3-Dichlorobenzene	130	130	U *
1,4-Dichlorobenzene	130	130	U*
1,2-Dichlorobenzene	130	130	U *
1,2-Dibromo-3-chloropropane	130	130	U *
1,2,4-Trichlorobenzene	130	130	U *
1,2,3-Trichlorobenzene	130	130	U *
1,3-Dichloropropane	130	130	U *
n-Butylbenzene	130	130	U *
sec-Butylbenzene	130	130	\U * \
tert-Butylbenzene	130	130	U *
2-Chlorotoluene	130	130	U *
4-Chlorotoluene	130	130	U *
Dibromomethane	130	130	U *
1,3,5-Trimethylbenzene	130	130	U*
2,2-Dichloropropane	130	130	U *
1,1-Dichloropropene	130	130	U *
Hexachlorobutadiene	130	130	U *
p-Isopropyltoluene	130	130	U *
Naphthalene	130	61) *
n-Propylbenzene	130	130	U *
1,1,1,2-Tetrachloroethane	130	130	U *
1,2,3-Trichloropropane	130	130	U.*
1,2,4-Trimethylbenzene	130	130	U *
Bromobenzene	130	130	U *

Volume (ml):

25

Dilution Factor:

250

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP1 (SIM)
STATION LOCATION		MW-16	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml):

25

Dilution Factor:

25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

T. Fan Reviewer:

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP2	
STATION LOCATION		MW-17	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ ·
Bromomethane	13	13	UJv
Chloroethane	13.	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	υ
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U ·
2-Butanone	130	130	U ·
Bromochloromethane	13	13	U -
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	370	
Carbon tetrachloride	13	13	U
Benzene	13	2200	*
1,2-Dichloroethane	13	13	ĮU
Trichloroethene	13	13	U
Methylcyclohexane	13	230	
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	13	υ
trans-1,3-Dichloropropene	13	13	บ
1,1,2-Trichloroethane	13	13	Ú
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Case No.:

42498

SDG:

Laboratory:

A4

Matrix: Water

Units:

Reviewer:

ug/L

EPA SAMPLE No.	·	F5MP2	
STATION LOCATION		MW-17	
7	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	13	320	
o-Xylene	1,3	13	* .
m,p-Xylene	13	310	
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	16	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	บ
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	υ
1,2-Dibromo-3-chloropropane	13	13	U *
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	υ
1,3-Dichloropropane	13 .	13	υ
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	13	U
2-Chlorotoluene	13	13	U
4-Chiorotoluene	13.	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	84	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-lsopropyltoluene	13	13	U
Naphthalene	13	76	
n-Propylbenzene	13	27	
1,1,1,2-Tetrachloroethane	13	13	ĮU .
1,2,3-Trichloropropane	13	13	U.
1,2,4-Trimethylbenzene	13	240	
Bromobenzene	13	13	U .

Volume (ml):

25

Dilution Factor:

25

Case No.:

42498

F5MP0 SDG:

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP2DL	
STATION LOCATION		MW-17	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	130	130	U *
Chloromethane	130	130	U *
Vinyl chloride	130	130	U *
Bromomethane	130	130	U *
Chloroethane	130	130	U *
Trichlorofluoromethane	130	130	U *
1,1-Dichloroethene	130	130	Ū*
1,1,2-Trichloro-1,2,2-trifluoroethane	130	130	U *
Acetone	1300	1300	U *
Carbon Disulfide	130	130	U *
Methyl acetate	130	130	U *
Methylene chloride	130	130	Ū*
trans-1,2-Dichloroethene	130	130	U *
Methyl tert-butyl ether	130	130	บ *
1,1-Dichloroethane	130	130	U *
cis-1,2-Dichloroethene	130	130	U *
2-Butanone	1300	1300	U *
Bromochloromethane	130	130	U *·
Chloroform	130	130	U *
1,1,1-Trichloroethane	130	130	U *
Cyclohexane	130	320	*
Carbon tetrachloride	130	130	U *
Benzene	130	2500	
1,2-Dichloroethane	130	130	U *
Trichloroethene	130	130	Ú*
Methylcyclohexane	130	210	*
1,2-Dichloropropane	130	130	U *
Bromodichloromethane	130	130	U *
cis-1,3-Dichloropropene	130	130	U *
4-Methyl-2-pentanone	1300	1300	U *
Toluene	130	130	U *
trans-1,3-Dichloropropene	130	130	U *
1,1,2-Trichloroethane	130	130	U *
Tetrachloroethene	130	130	U *
2-Hexanone	1300.	1300	[U *
Dibromochloromethane	130	130]∪ *
1,2-Dibromoethane	130	130	U *
Chlorobenzene	130	130	U *

Case No.:

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	·	F5MP2DL	
STATION LOCATION		MW-17	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	130	260	*
o-Xylene	130	130	U *
m,p-Xylene	130	280	*
Styrene	130	130	υ *
Bromoform	130	130	U *
Isopropylbenzene	130	130	U *
1,1,2,2-Tetrachloroethane	130	130	U * -
1,3-Dichlorobenzene	130	130	U *
1,4-Dichlorobenzene	130	130	U *
1,2-Dichlorobenzene	130	130	U *
1,2-Dibromo-3-chloropropane	130	130	U *
1,2,4-Trichlorobenzene	130	130	U *
1,2,3-Trichlorobenzene	130	130	U *
1,3-Dichloropropane	130	130	U *
n-Butylbenzene	130	130	U *
sec-Butylbenzene	130	130	U *
tert-Butylbenzene	130	130	U *
2-Chlorotoluene	130	130	U *
4-Chlorotoluene	130	130	U *
Dibromomethane	130	130	U *
1,3,5-Trimethylbenzene	130	130	U *
2,2-Dichloropropane	130	130	ับ *
1,1-Dichloropropene	130	130	U *
Hexachlorobutadiene	130	130	U.*
p-Isopropyltoluene	130	130	U *
Naphthalene	130	100	*
n-Propylbenzene	130	130	U *
1,1,1,2-Tetrachloroethane	130	130	U *
1,2,3-Trichloropropane	130	130	U *
1,2,4-Trimethylbenzene	130	190	*
Bromobenzene	130	130	U *

Volume (ml):

25

Dilution Factor:

250

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP2 (SIM)		
STATION LOCATION	MW-17		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	UJv

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

F5MP0

Case No.:

42498

SDG:

T. Fan Reviewer:

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP3	
STATION LOCATION		MW-18	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U .
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ .
Bromomethane	13	13	UJv
Chloroethane	13	13	lυ
Trichlorofluoromethane	13	13	Įυ
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13]U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U
2-Butanone	130	130	υ
Bromochloromethane	13	13	υ ·
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	1400	*
Carbon tetrachloride	13	13	ĮU
Benzene	13	8200	*
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	800	*
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U .
cis-1,3-Dichloropropene	13	13	υ
4-Methyl-2-pentanone	130	130	Įυ
Toluene	13	3100	*
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	 U
Tetrachloroethene	13	13	ĮU
2-Hexanone	130	130	U
Dibromochloromethane	13	13	Ų
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.				
STATION LOCATION	MW-18			
	ADJ			
Volatile	CRQL	RESULT	FLAG	
Ethylbenzene	13	860	*	
o-Xylene	13	510	J	
m,p-Xylene	13	2700	*	
Styrene	13	13	U	
Bromoform	13	13	U	
Isopropylbenzene	13	47		
1,1,2,2-Tetrachloroethane	13	13	U	
1,3-Dichlorobenzene	13	13	U	
1,4-Dichlorobenzene	13	13	U	
1,2-Dichlorobenzene	13	13	U	
1,2-Dibromo-3-chloropropane	13	13	Įυ	
1,2,4-Trichlorobenzene	13	13	U	
1,2,3-Trichlorobenzene	13	13	U	
1,3-Dichloropropane	13	13	์ บ	
n-Butylbenzene	13	13	U	
sec-Butylbenzene	∤ 13	13	\U	
tert-Butylbenzene	13	13	U	
2-Chlorotoluene	13	13	U	
4-Chlorotoluene	13	13	U	
Dibromomethane	13	13	U	
1,3,5-Trimethylbenzene	13	180		
2,2-Dichloropropane	13	13	U	
1,1-Dichloropropene	13	13	U	
Hexachlorobutadiene	13	13	U	
p-Isopropyltoluene	13	13	U	
Naphthalene	13	130		
n-Propylbenzene	13	44		
1,1,1,2-Tetrachloroethane	13	13	U	
1,2,3-Trichloropropane	13	13	ับ	
1,2,4-Trimethylbenzene	13	420		
Bromobenzene	13	13	∤U	

Volume (ml):

25

Dilution Factor:

25

Case No. :

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

	A SAMPLE No.	F5MP3DL		
STA	TION LOCATION		MW-18	
		ADJ		
	Volatile	CRQL	RESULT	FLAG
Dichlorodif	uoromethane	630	630	U *
Chlorometh	ane	630	630	U *
Vinyl chloric		630	630	U *
Bromometh		630	630	U *
Chloroethar	•	630	630	U *
1	oromethane	630	630	U *
1,1-Dichlore	· ·	630	630	U *
	oro-1,2,2-trifluoroethane	630	630	U *
Acetone		6300	6300	Ų *
Carbon Dis		630	630	U *
Methyl acet		630	630	U *
Methylene (630	630	U *
	ichloroethene	630	630	U *
Methyl tert-		630	630	U *
1,1-Dichlore		630	630	U *
cis-1,2-Dich		630	630	U *
2-Butanone		6300	6300	U *
Bromochlor	omethane	630	630	U *
Chloroform		630	630	U *
1,1,1-Trichl		630	630	U *
Cyclohexan		630	1600	
Carbon tetr	achloride	630	630	U *
Benzene	:	630	21000	
1,2-Dichlore		630	630	U *
Trichloroeth		630	630	U *
Methylcyclo		630	1100	
1,2-Dichlord		630	630	U *
	oromethane	630	630	U *
	nloropropene	630	630	U *
4-Methyl-2-	pentanone	6300	6300	U *-
Toluene		630	3900	
	ichloropropene	630	630	U *
1,1,2-Trichl		630	630	U *
Tetrachloro	· ·	630	630	U *
2-Hexanone		6300	6300	U *
	oromethane	630	630	U *
1,2-Dibrom		630	630	U *
Chlorobenz	ene	630	630	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP3DL		
STATION LOCATION		MW-18	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	630	850	
o-Xylene	630	630	U *
m,p-Xylene	630	2900	}
Styrene	630	630	U *
Bromoform	630	630	U.*
Isopropylbenzene	630	630	U *
1,1,2,2-Tetrachloroethane	630	630	U *
1,3-Dichlorobenzene	630	630	U *
1 4-Dichlorobenzene	630	630	U * · ·
1,2-Dichlorobenzene	630	630	U *
1,2-Dibromo-3-chloropropane	630	630	U *
1,2,4-Trichlorobenzene	630	630	U *
1,2,3-Trichlorobenzene	630	630	U *
1,3-Dichloropropane	630	630	U *
n-Butylbenzene	630	630	U *
sec-Butylbenzene	630	630	\U *
tert-Butylbenzene	630	630	U *
2-Chlorotoluene	630	630	U *
4-Chlorotoluene	630	630	U *
Dibromomethane	630	630	U *
1,3,5-Trimethylbenzene	630	630	U *
2,2-Dichloropropane	630	630	\U *
1,1-Dichloropropene	630	630	U *
Hexachlorobutadiene	630	630	U *
p-isopropyltoluene	630	630	U *
Naphthalene	630	320	*
n-Propylbenzene	630	630	U *
1,1,1,2-Tetrachloroethane	630	630	U *
1,2,3-Trichloropropane	630	630	\U *
1,2,4-Trimethylbenzene	630	410	*
Bromobenzene	630	630	U *

Volume (ml):

25

Dilution Factor:

1250

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

F5MP0

Case No.:

42498

SDG:

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP3 (SIM)		
STATION LOCATION	MW-18			
Volatile	ADJ CRQL	RESULT	FLAG	
1,2-Dibromoethane	1.3	1.3	JU.,	
1,2-Dibromo-3-chloropropane	1.3	1.3	[U "	

Volume (ml):

25

Dilution Factor:

25

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP4	
STATION LOCATION		MW-4	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	υ
Methyl tert-butyl ether	0.50	0.50	U
1.1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	ĮU
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	3.5	
Carbon tetrachloride	0.50	0.50	ุบป
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	UJv
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	UJv
1,1,2-Trichloroethane	0.50	0.50	UJv
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	6.1	ļ
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	,	F5MP4	
STATION LOCATION		MW-4	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.58	
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	ĮU
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	ĮU
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U .
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	ĮU
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

1

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP4 (SIM	1)
STATION LOCATION		MW-4	<u> </u>
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP4RE (SIM)		
STATION LOCATION		MW-4		
Volatile	ADJ CRQL	RESULT	FLAG	
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	U * U *	

Volume (ml):

25

Dilution Factor:

1

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP5	
STATION LOCATION		MW-9	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	υ
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U ·
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	ប
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U .
1,1,1-Trichloroethane	0.50	0.50	U -
Cyclohexane	0.50	19	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	1.1	
Methylcyclohexane	0.50	49	*
1,2-Dichloropropane	0.50	0.50	U-
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	1.1	
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	Ü*
Chlorobenzene	0.50	0.50	Ü

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP5	
STATION LOCATION		MW-9	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.91	
o-Xylene	0.50	0.50	U
m,p-Xylene .	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U -
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U l
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

Case No. :

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	Ţ	F5MP5DL	
STATION LOCATION		MW-9	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	2.5	2.5	U*
Chloromethane	2.5	2.5	Ŭ*
Vinyl chloride	2.5	2.5	U *
Bromomethane	2.5	2.5	U *
Chloroethane	2.5	2.5	U *
Trichlorofluoromethane	2.5	2.5	U *
1,1-Dichloroethene	2.5	2.5	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	2.5	U *
Acetone	25	25	U *
Carbon Disulfide	2.5	2.5	U *
Methyl acetate	2.5	2.5	U *
Methylene chloride	2.5	2.5	U *
trans-1,2-Dichloroethene	2.5	2.5	U *
Methyl tert-butyl ether	2.5	2.5	U *
1,1-Dichloroethane	2.5	2.5	U *
cis-1,2-Dichloroethene	2.5	2.5	U *
2-Butanone	25	25	U *
Bromochloromethane	2.5	2.5	U *
Chloroform	2.5	2.5	U *
1,1,1-Trichloroethane	2.5	2.5	U *
Cyclohexane	2.5	12	*
Carbon tetrachloride	2.5	2.5	U *
Benzene	2.5	2.5	U *
1,2-Dichloroethane	2.5	2.5	U *
Trichloroethene	2.5	1.2	*
Methylcyclohexane	2.5	39	
1,2-Dichloropropane	2.5	2.5	U *
Bromodichloromethane	2.5	2.5	U *
cis-1,3-Dichloropropene	2.5	2.5	U *
4-Methyl-2-pentanone	25	25	U *
Toluene	2.5	2.5	U *
trans-1,3-Dichloropropene	2.5	2.5	บ *
1,1,2-Trichloroethane	2.5	2.5	U *
Tetrachloroethene	2.5	0.98	*
2-Hexanone	25	25	U *
Dibromochloromethane	2.5	2.5	U *
1,2-Dibromoethane	2.5	2.5	U *
Chlorobenzene	2.5	2.5	υ *

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	<u> </u>	F5MP5DL	
STATION LOCATION		MW-9	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	2.5	2.5	U*
o-Xylene	2.5	2.5	U *
m,p-Xylene	2.5	2.5	U *
Styrene	2.5	2.5	U *
Bromoform	2.5	2.5	U *
Isopropylbenzene	2.5	2.5	U * .
1,1,2,2-Tetrachloroethane	2.5	2.5	U *.
1,3-Dichlorobenzene	2.5	2.5	U *
1,4-Dichlorobenzene	2.5	2.5	U *
1,2-Dichlorobenzene	2.5	2.5	U *
1,2-Dibromo-3-chloropropane	2.5	2.5	U *
1,2,4-Trichlorobenzene	2.5	2.5	U *
1,2,3-Trichlorobenzene	2.5	2.5	U *
1,3-Dichloropropane	2.5	2.5	U *
n-Butylbenzene	2.5	2.5	U *
sec-Butylbenzene	2.5	2.5	U *
tert-Butylbenzene	2.5	2.5	U *
2-Chlorotoluene	2.5	2.5	U *
4-Chlorotoluene	2.5	2.5	U *
Dibromomethane	2.5	2.5	U *
1,3,5-Trimethylbenzene	2.5	2.5	U *
2,2-Dichloropropane	2.5	2.5	U *
1,1-Dichloropropene	2.5	2.5	U *
Hexachlorobutadiene	2.5	2.5	U *
p-Isopropyitoluene	2.5	2.5	U *
Naphthalene	2.5	2.5	U *
n-Propylbenzene	2.5	2.5	U * .
1,1,1,2-Tetrachloroethane	2.5	2.5	U *
1,2,3-Trichloropropane	2.5	2.5	U *
1,2,4-Trimethylbenzene	2.5	2.5	U *
Bromobenzene	2.5	2.5	U *

Volume (ml):

25

Dilution Factor:

5

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP5 (SIN	1)
STATION LOCATION		MW-9	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	U UJv

Volume (ml):

25

Dilution Factor:

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP5RE (SIM)		
STATION LOCATION		MW-9		
Volatile	ADJ CRQL	RESULT	FLAG	
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	U *	

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

T. Fan Reviewer:

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP6	
STATION LOCATION		MW-19	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U *
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U *
Acetone	130	130	U
Carbon Disulfide	13	13	JU -
Methyl acetate	13	13	U *
Methylene chloride	13	12	*
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U *
1.1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U *
Cyclohexane	13	540	*
Carbon tetrachloride	13	13	U *
Benzene	13	3200	l
1,2-Dichloroethane	13	13	U *
Trichloroethene	13	13	U
Methylcyclohexane	13	290	l
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	υ
Toluene	13	27	l
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	Ų.
Tetrachloroethene	13	13	Ų.
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U.
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP6	
STATION LOCATION	i	MW-19	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	13	410	
o-Xylene	13	18	
m,p-Xylene	13	520	*
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	21	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U .
1,3-Dichloropropane	13	13	υ
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	34	N
2-Chlorotoluene	13	13	Įυ
4-Chlorotoluene	13	13	Įυ
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	72	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	Įυ
Naphthalene	13	130	1
n-Propylbenzene	13	33	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	250	
Bromobenzene	13	13	U

Volume (ml):

25

Dilution Factor:

25

Case No.;

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

	EPA SAMPLE No.	F5MP6DL		
	STATION LOCATION		IMW-19	
		ADJ		
	Volatile	CRQL	RESULT	FLAG
Dichlo	rodifluoromethane	250	250	U *
	methane	250	250	U *
	chloride	250	250	Ŭ *
	methane	250	250	U *
	ethane	250	250	U *
	rofluoromethane	250	250	U
	chloroethene	250	250	U *
1,1,2-7	Frichloro-1,2,2-trifluoroethane	250	250	U
Acetor		2500	2500	U *
	n Disulfide	250	250	U *
Methyl	acetate	250	250	U
	ene chloride	250	250	U
trans-1	,2-Dichloroethene	250	250	U *
Methyl	tert-butyl ether	250	250	U
1,1-Did	chloroethane	250	250	U *
cis-1,2	-Dichloroethene	250	250	U*
2-Buta	none	2500	2500	U *
Bromo	chloromethane	250	250	U* ·
Chloro		250	250	U *
1,1,1-7	[richloroethane	250	250	U
	nexane	250	570	
Carbo	n tetrachloride	250	250	UJ
Benze		250	3900	
1,2-Did	chloroethane	250	250	U
	roethene	250	250	U *
Methyl	cyclohexane	250	270	*
1,2-Dic	chloropropane	250	250	U *
Bromo	dichloromethane	250	250	U *
cis-1,3	-Dichloropropene	250	250	U *
4-Meth	yl-2-pentanone	2500	2500	U *
Toluer	e	250	46	*
trans-1	,3-Dichloropropene	250	250	U *
	Frichloroethane	250	250	U *
Tetrac	hloroethene	250	250	U *
2-Hexa	anone	2500	2500	Ú *
	nochloromethane	250	250	U*
1,2-Dil	oromoethane	250	250	U *
	benzene	250	250	U *

Case No.:

42498

SDG:

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP6DL	
STATION LOCATION		MW-19	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	250	370	*
o-Xylene	250	250	U *
m,p-Xylene	250	480	
Styrene	250	250	U *
Bromoform	250	250	U *
Isopropylbenzene	250	250	U *
1,1,2,2-Tetrachloroethane	250	250	U *
1,3-Dichlorobenzene	250	250	U *
1,4-Dichlorobenzene	250	250	U *
1,2-Dichlorobenzene	250	250	U *
1,2-Dibromo-3-chloropropane	250	250	U *
1,2,4-Trichlorobenzene	250	250	U *
1,2,3-Trichlorobenzene	250	250	U *
1,3-Dichloropropane	250	250	U *
n-Butylbenzene	250	250	U *
sec-Butylbenzene	250	250	U *
tert-Butylbenzene	250	250 .	U *
2-Chlorotoluene	250	250	U *
4-Chlorotoluene	250	250	U *
Dibromomethane	250	250	U∗*
1,3,5-Trimethylbenzene	250	250	U *
2,2-Dichloropropane	250	250	U *
1,1-Dichloropropene	250	250	U *
Hexachlorobutadiene	250	250	U *
p-isopropyltoluene	250	250	U *
Naphthalene	250	170	*
n-Propylbenzene	250	250	U *
1,1,1,2-Tetrachloroethane	250	250	υ *
1,2,3-Trichloropropane	250	250	U *
1,2,4-Trimethylbenzene	250	200	*
Bromobenzene	250	250	U *

Volume (ml):

25

Dilution Factor:

500

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP6 (SIM)		
STATION LOCATION	MW-19		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml):

25

Dilution Factor:

25

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No. F5MP7			
STATION LOCATION		MW-20	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	Įυ
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	υ
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	2.4	
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U .
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U .
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U -∤
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	Ų

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No. F5MP7			
STATION LOCATION		MW-20	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	 U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	UJv
1,3-Dichlorobenzene	0.50	0.50	ĮU
1,4-Dichlorobenzene	0.50	0.50	ĮU
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U .
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U ·
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	1.0	UM
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP7 (SIM)		
STATION LOCATION		MW-20	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	η η

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No. F5MP8			
STATION LOCATION		MW-21	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	υ
Trichlorofluoromethane	0.50	0.50	ļυ
1,1-Dichloroethene	0.50	0.50	Įυ
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	ļυ
Carbon Disulfide	0.50	0.50	Įυ `
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	ļυ
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	υ
1.1-Dichloroethane	0.50	0.50	υ
cis-1,2-Dichloroethene	0.50	0.78	}
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	Įυ
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	1.1	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.53	
Trichloroethene	0.50	2.3	J۸
Methylcyclohexane	0.50	130	*
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	UJv
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	UJv
1,1,2-Trichloroethane	0.50	0.50	UJv
Tetrachloroethene	0.50	1.2	J^
2-Hexanone	5.0	5.0	Įυ
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Case No. :

42498

SDG: F5MP0 Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	Γ	F5MP8	
STATION LOCATION		MW-21	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	5.9	J۸
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	2.0	J^
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.27	LJ
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	1.8	UM
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U .
1,2,4-Trimethylbenzene	0.50	1.6	N
Bromobenzene	0.50	0.50	U -

Volume (mi):

25

Dilution Factor:

Case No.:

42498

SDG:

F5MP0 Reviewer: T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

i	EPA SAMPLE No.	F5MP8DL		
	STATION LOCATION		MW-21	
		ADJ		
	Volatile	CRQL	RESULT	FLAG
-	Dichlorodifluoromethane	5.0	5.0	U *
1	Chloromethane	5.0	5.0	Ū *
1	Vinyl chloride	5.0	5.0	U *
1	Bromomethane	5.0	5.0	U *
1	Chloroethane .	5.0	5.0	U *
Į	Trichlorofluoromethane	5.0	5.0	U *
	1,1-Dichloroethene	5.0	5.0	U *
	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	5.0	U *
1	Acetone	50	50	U *
1	Carbon Disulfide	5.0	5.0	U* .
1	Methyl acetate	5.0	5.0	U *
1	Methylene chloride	5.0	2.3	*
١	trans-1,2-Dichloroethene	5.0	5.0	U *
	Methyl tert-butyl ether	5.0	5.0	U *
	1,1-Dichloroethane	5.0	5.0	U *
1	cis-1,2-Dichloroethene	5.0	5.0	U *
-	2-Butanone	50	50	U *
1	Bromochloromethane	5.0	5.0	U *
1	Chloroform	5.0	5.0	U *
1	1,1,1-Trichloroethane	5.0	5.0	U *
	Cyclohexane	5.0	5.0	U *
	Carbon tetrachloride	5.0	5.0	U *
ĺ	Benzene	5.0	5.0	U * `
	1,2-Dichloroethane	5.0	5.0	U *
ı	Trichloroethene	5.0	2.7	*
١	Methylcyclohexane	5.0	120	
1	1,2-Dichloropropane	5.0	5.0	U *
	Bromodichloromethane	5.0	5.0	U *
ı	cis-1,3-Dichloropropene	5.0	5.0	U *
	4-Methyl-2-pentanone	50	50	U *
1	Toluene	5.0	5.0	U *
İ	trans-1,3-Dichloropropene	5.0	5.0	U *
	1,1,2-Trichloroethane	5.0	5.0	U *
	Tetrachloroethene	5.0	5.0	Ų *
	2-Hexanone	50	50	U *
]	Dibromochloromethane	5.0	5.0	U *
	1,2-Dibromoethane	5.0	5.0	U *
	Chlorobenzene	5.0	5.0	U *

F5MP0

Case No.:

42498

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP8DL	
STATION LOCATION		MW-21	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	5.0	5.4	*
o-Xylene	5.0	5.0	U.*
m,p-Xylene	5.0	5.0	U *
Styrene	5.0	5.0	U *
Bromoform	5.0	5.0	U *
Isopropylbenzene	5.0	5.0	U *
1,1,2,2-Tetrachloroethane	5.0	5.0	Ú *
1,3-Dichlorobenzene	5.0	5.0	U *
1,4-Dichlorobenzene	5.0	5.0	U *
1,2-Dichlorobenzene	5.0	5.0	Ū*
1,2-Dibromo-3-chloropropane	5.0	5.0	U *
1,2,4-Trichlorobenzene	5.0	5.0	U *
1,2,3-Trichlorobenzene	5.0	5.0	U *
1,3-Dichloropropane	5.0	5.0	U *
n-Butylbenzene	5.0	5.0	U *
sec-Butylbenzene	5.0	5.0	U *
tert-Butylbenzene	5.0	5.0	U *
2-Chlorotoluene	5.0	5.0	Ū*
4-Chlorotoluene	5.0	5.0	U *
Dibromomethane	5.0	5.0	U *
1,3,5-Trimethylbenzene	5.0	5.0	U *
2,2-Dichloropropane	5.0	5.0	U *
1,1-Dichloropropene	5.0	5.0	U *
Hexachlorobutadiene	5.0	5.0	U *
p-Isopropyltoluene	5.0	5.0	U *
Naphthalene	5.0	5.0	U *
n-Propylbenzene	5.0	5.0	U *
1,1,1,2-Tetrachloroethane	5.0	5.0	υ*.
1,2,3-Trichloropropane	5.0	5.0	U *
1,2,4-Trimethylbenzene	5.0	5.0	U *
Bromobenzene	5.0	5.0	U *

Volume (ml):

25

Dilution Factor:

10

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4.

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP8 (SIM)		
STATION LOCATION		MW-21	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP8RE (SIM)		
STATION LOCATION	MW-21			
Volatile	ADJ CRQL	RESULT	FLAG	
1,2-Dibromoethane	0.050	0.050	U *	
1,2-Dibromo-3-chloropropane	0.050	0.050	U *	

Volume (ml):

25

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer: T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP9	
STATION LOCATION		MW-22	I.
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U ·
Acetone	5.0	5.0	υ
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.28	LJ
2-Butanone	5.0	5.0	U
Bromochloromethane.	0.50	0.50	U
Chloroform	0.50	0.50	υ
1,1,1-Trichloroethane	0.50	0.50	υ
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	υ
Trichloroethene	0.50	1.2	
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	Ü
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	1.3	
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	υ·

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MP9	
STATION LOCATION		MW-22	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	υ
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U .
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	υ
1,2-Dibromo-3-chloropropane	0.50	0.50	υ *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	บ
n-Butylbenzene	0.50	0.50	บ
sec-Butylbenzene	0.50	0.50	บ
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	υ
4-Chlorotoluene	0.50	0.50	υ
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	JU J
2,2-Dichloropropane	0.50	0.50	U :
1,1-Dichloropropene	0.50	0.50	ļυ ·
Hexachlorobutadiene	0.50	0.50	U
p-isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U .
1,1,1,2-Tetrachloroethane	0.50	0.50	U.
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U ,
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

Case No. :

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP9 (SIM	l) ·
STATION LOCATION		MW-22	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	UJv
1,2-Dibromo-3-chloropropane	0.050	10.050	UJv

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP9RE (SIM)
STATION LOCATION		MW-22	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml):

25

Dilution Factor:

Case No.:

42498

SDG:

F5MP0

T. Fan Reviewer:

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ0	
STATION LOCATION		MW-21-D	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	บ
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.73	
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	1.0	
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.33	LJ
1,2-Dichloroethane	0.50	0.48	LJ
Trichloroethene	0.50	2.2	:
Methylcyclohexane	0.50	120	*
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	1.1	
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	υ
1,2-Dibromoethane	0.50	0.50	Ŭ*
Chlorobenzene	0.50	0.50	U

Case No.:

42498

SDG: F5MP0

Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ0	
STATION LOCATION	İ	MW-21-D	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	5.6	
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	1.9	
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U -
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	υ
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	2.2	UM .
n-Propylbenzene	0.50	2.5	
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ0DL	
STATION LOCATION		MW-21-D	
·	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	5.0	5.0	U *
Chloromethane	5.0	5.0	U *
Vinyl chloride	5.0	5.0	U *
Bromomethane	5.0	5.0	U *
Chloroethane	5.0	5.0	U *
Trichlorofluoromethane	5.0	5.0	U *
1,1-Dichloroethene	5.0	5.0	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	5.0	ับ *
Acetone	50	50	U *
Carbon Disulfide	5.0	5.0	U *
Methyl acetate	5.0	5.0	U *
Methylene chloride	5.0	5.0	U *
trans-1,2-Dichloroethene	5.0	5.0	U *
Methyl tert-butyl ether	5.0	5.0	U *
1.1-Dichloroethane	5.0	5.0	U *
cis-1,2-Dichloroethene	5.0	5.0	U *
2-Butanone	50	50	U *
Bromochloromethane	5.0	5.0	U *
Chloroform	5.0	5.0	U *
1,1,1-Trichloroethane	5.0	5.0	U *
Cyclohexane	5.0	5.0	บ *
Carbon tetrachloride	5.0	5.0	U *
Benzene	5.0	5.0	U *
1,2-Dichloroethane	5.0	5.0	U *
Trichloroethene	5.0	2.9	*
Methylcyclohexane	5.0	120	• .
1,2-Dichloropropane	5.0	5.0	U *
Bromodichloromethane	5.0	5.0	U *
cis-1,3-Dichloropropene	5.0	5.0	U *
4-Methyl-2-pentanone	50	50	U*
Toluene	5.0	5.0	U *
trans-1,3-Dichloropropene	5.0	5.0	Ų *
1,1,2-Trichloroethane	5.0	5.0	U *
Tetrachloroethene	5.0	5.0	U *
2-Hexanone	50	50	U *
Dibromochloromethane	5.0	5.0	U *
1,2-Dibromoethane	5.0	5.0	U *
Chlorobenzene	5.0	5.0	U *

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ0DL.	
STATION LOCATION		MW-21-D	· ·
	ADJ	_	
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	5.0	5.7	*
o-Xylene	5.0	5.0	U *
m,p-Xylene	5.0	5.0	U *
Styrene	5.0	5.0	U *
Bromoform	5.0	5.0	U *
Isopropylbenzene	5.0	5.0	บ *
1,1,2,2-Tetrachloroethane	5.0	5.0	U *
1,3-Dichlorobenzene	5.0	5.0	บ *
1,4-Dichlorobenzene	5.0	5.0	U *
1,2-Dichlorobenzene	5.0	5.0	บ *
1,2-Dibromo-3-chloropropane	5.0	5.0	U *
1,2,4-Trichlorobenzene	5.0	5.0	U * .
1,2,3-Trichlorobenzene	5.0	5.0	U *
1,3-Dichloropropane	5.0	5.0	U *
n-Butylbenzene	5.0	5.0	U *
sec-Butylbenzene	5.0	5.0	U *
tert-Butylbenzene	5.0	5.0	U *
2-Chlorotoluene	5.0	5.0	U *
4-Chlorotoluene	5.0	5.0	U *
Dibromomethane	5.0	5.0	U *
1,3,5-Trimethylbenzene	5.0	5.0	U *
2,2-Dichloropropane	5.0	5.0	U *
1,1-Dichloropropene	5.0	5.0	U *
Hexachlorobutadiene	5.0	5.0	U *
p-Isopropyltoluene	5.0	5.0	U *
Naphthalene	5.0	2.9	*
n-Propylbenzene	5.0	5.0	U *
1,1,1,2-Tetrachloroethane	5.0	5.0	U *
1,2,3-Trichloropropane	5.0	5.0	U *
1,2,4-Trimethylbenzene	5.0	5.0	U *
Bromobenzene	5.0	5.0	U *

Volume (ml):

25

Dilution Factor:

10

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ0 (SIM)
STATION LOCATION		MW-21-D	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	UJv U

Volume (ml):

25

Dilution Factor:

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MQ0RE (SIM)		
STATION LOCATION		MW-21-D		
Volatile	ADJ CRQL	RESULT	FLAG	
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	U * U *	

Volume (ml):

25

Dilution Factor:

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MQ1	
STATION LOCATION	ļ	MW-4-D	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U ·
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	lo.50	0.50	lu
1,1-Dichloroethene	0.50	0.50	lu
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	lu
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U .
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U ·
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	3.8	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	υ
cis-1,3-Dichloropropene	0.50	0.50	UJv
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	UJv
1,1,2-Trichloroethane	0.50	0.50	UJv
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	6.8	l
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

F5MP0

Case No.:

42498

SDG:

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	T	F5MQ1	
STATION LOCATION		MW-4-D	1
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U U
Bromoform ·	0.50	0.50	U
Isopropylbenzene	0.50	0.67	
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	υ
1,4-Dichlorobenzene	0.50	0.50	υ
1,2-Dichlorobenzene	0.50	0.50	บ
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U U
1,2,3-Trichlorobenzene	0.50	0.50	U.
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U .,
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U -
2-Chlorotoluene	0.50	0.50	U U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	ĮU
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	υ
p-Isopropyltoluene	0.50	0.50	U ·
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	ĮU
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U .
Bromobenzene	0.50	0.50	ļυ

Volume (ml):

25

Dilution Factor:

1

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

Α4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MQ1 (SIN	1)
STATION LOCATION		MW-4-D	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	UJv U

Volume (ml):

25

Dilution Factor:

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer: T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ5	
STATION LOCATION		TB-1	
'	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ -
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U į
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ5	
STATION LOCATION		TB-1	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	υ
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	ļυ
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-isopropyitoluene	0.50	0.50	U
Naphthalene	0.50	0.32	LJ
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U ·
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ5 (SIN	/ I)
STATION LOCATION		TB-1	
	ADJ		
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	lUJv

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0 Reviewer: T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ6	
STATION LOCATION		TB-2	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	Ü
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.68	UM
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1 1 1-Trichloroethane	0.50	0.50	U · ·
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	Ų
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ6	
STATION LOCATION	7	TB-2	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U .
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	Ü
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	IJν
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U .
n-Butylbenzene	0.50	0.50	U _.
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.66	
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Δ.4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ6 (SIN	1)
STATION LOCATION		TB-2	
	ADJ		
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml):

25

Dilution Factor:

4

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MQ7	
STATION LOCATION		FB-1	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	lυ
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U .
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	ŀU
1,1-Dichloroethane	0.50	0.50	Įυ
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U i
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U ·
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	Įυ
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	Įυ
cis-1,3-Dichloropropene	0.50	0.50	υ
4-Methyl-2-pentanone	5.0	5.0	υ
Toluene	0.50	0.27	LJ
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	υ
Tetrachloroethene	0.50	0.50	υ
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Case No. :

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ7	
STATION LOCATION		FB-1	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	υ
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	UJv
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	Ú
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	υ
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U .
sec-Butylbenzene	0.50	0.50	υ
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	υ
4-Chlorotoluene	0.50	0.50	υ
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	υ
2,2-Dichloropropane	0.50	0,50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.66	
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.14	LJ
Bromobenzene	0.50	0.50	U

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T: Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ7 (SIM)	
STATION LOCATION		FB-1	·
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	" U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No. :

42498

SDG: F5MP0

Reviewer: T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ8	
STATION LOCATION		FB-2	<u> </u>
	ADJ		
Volatile	CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	υ
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U ·
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	Ü
Benzene	0.50	0.42	LJ
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.38	LJ
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Case No.:

42498

SDG: F5MP0

Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MQ8	
STATION LOCATION		FB-2	
	ADJ		
Volatile	CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	C
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.33	LJ ′
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U U
Isopropylbenzene	0.50	0.50	U .
1,1,2,2-Tetrachloroethane	0.50	0.50	U .
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U .
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U.
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	Įυ
p-Isopropyltoluene	0.50	0.50	ĮU
Naphthalene	0.50	0.97	
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	ļύ
1,2,3-Trichloropropane	0.50	0.50	U _
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U .

Volume (ml):

25

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4.

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MQ8 (SIM)		
STATION LOCATION		FB-2		
Volatile	ADJ CRQL	RESULT	FLAG	
1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	0.050 0.050	0.050 0.050	IJν	

Volume (ml):

25

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

 $\Delta \Delta$

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MQ8RE (SIM)		
STATION LOCATION	FB-2		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	[U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml):

25

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.,:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

.A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP0	
STATION LOCATION		MW-14	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	100	100	U
Aniline	100	100	lυ
Benzaldehyde	50	50	U
Phenol	50	1900	*
Bis(2-Chloroethyl)ether	50	50	υ
2-Chlorophenol	50	50	lυ
2-Methylphenol	50	1800	*
2,2'-Oxybis(1-chloropropane)	50	50	lυ
Acetophenone	50	50	lυ
4-Methylphenol	50	1200	*
N-Nitroso-di-n-propylamine	50	50	Įυ
Hexachloroethane	50	50	U
Nitrobenzene	50	50	U
Isophorone	50	50	U
2-Nitrophenol	50	50	U .
2,4-Dimethylphenol	50	900	* .
Bis(2-chloroethoxy)methane	50	50	U
2,4-Dichlorophenol	50	50	U
Naphthalene	50	340	*
4-Chloroaniline	50	50	U U
Hexachlorobutadiene	50	50	U *
Caprolactam	50	50	U
4-Chloro-3-methylphenol	50	50	U
2-Methylnaphthalene	50	83	
Hexachlorocyclopentadiene	50	50	U
2,4,6-Trichlorophenol	50	50	U
2,4,5-Trichlorophenol	50	50	U
1,1'-Biphenyl	50	4.2	LJ
2-Chloronaphthalene	50	50	U
2-Nitroaniline	100	100	U
Dimethylphthalate	50	50	U
2,6-Dinitrotoluene	50	50	U
Acenaphthylene	50	50	U *
3-Nitroaniline	100	100	U
Acenaphthene	50	50	U *
2,4-Dinitrophenol	100	100	U
4-Nitrophenol	100	100	U
Dibenzofuran	50	50	U
2,4-Dinitrotoluene	50	50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

F5MP0

Case No.:

42498

SDG:

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP0	
STATION LOCATION		MW-14	
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	50	50	0
Fluorene	50	50	U *
4-Chlorophenyl-phenylether	50	50	ΙŬ
4-Nitroaniline	100	100	ΙŬ
4,6-Dinitro-2-methylphenol	100	100	ΙŬ
N-Nitrosodiphenylamine	50	50	Ü .
1,2,4,5-Tetrachlorobenzene	50	50	Ü
4-Bromophenyl-phenylether	50	50	Ü
Hexachlorobenzene	50	50	ΙŬ
Atrazine	50	50	Ιŭ
Pentachlorophenol	100	100	lŭ∗
Phenanthrene	50	50	lū∗
Anthracene	50	50	lū∗
Carbazole	50	50	lŭ '
Di-n-butylphthalate	50	50	lu '
Fluoranthene	50	50	lū∗
Pyrene	50	50	U *
Butylbenzylphthalate	50	50	. lu
3,3'-Dichlorobenzidine	50	50	U
Benzo(a)anthracene	50	50	U *
Chrysene	50	50	U *
Bis(2-ethylhexyl)phthalate	50	50	U U
Di-n-octylphthalate	50	50	U
Benzo(b)fluoranthene	50	50	U *
Benzo(k)fluoranthene	50	50	U *.
Benzo(a)pyrene	50	50	U *
Indeno(1,2,3-cd)pyrene	50	50	U *
Dibenzo(a,h)anthracene	50	50	U *
Benzo(g,h,l)perylene	50	50	U *
2,3,4,6-Tetrachlorophenol	50	50	U

Volume (ml):

1000

Dilution Factor:

10

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	.]	F5MP0DL	
STATION LOCATION		MW-14	
	ADJ	···	-
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	500	500	U *
Aniline	500	500	Ū *
Benzaldehyde	250	250	U *
Phenol	250	1200	
Bis(2-Chloroethyl)ether	250	250	U *
2-Chlorophenol	250	250	U *·
2-Methylphenol	250	1200	
2,2'-Oxybis(1-chloropropane)	250	250	U * .
Acetophenone	250	250	∪ *
4-Methylphenol	250	830	
N-Nitroso-di-n-propylamine	250	250	U *
Hexachloroethane	250	250	U *
Nitrobenzene	250	250	U *
Isophorone	250	250	U *
2-Nitrophenol	250	250	U *
2,4-Dimethylphenol	250	620	· \
Bis(2-chloroethoxy)methane	250	250	U *
2,4-Dichlorophenol	250	250	บ *
Naphthalene	250	250	*
4-Chloroaniline	250	250	U *
Hexachlorobutadiene	250	250	U *
Caprolactam	250	250	U *
4-Chloro-3-methylphenol	250	250	U *
2-Methylnaphthalene	250	60	* *
Hexachlorocyclopentadiene	250	250	U *
2,4,6-Trichlorophenol	250	250	U *
2,4,5-Trichlorophenol	250	250	U *
1,1'-Biphenyl	250	250	U *
2-Chloronaphthalene	250	250	U *
2-Nitroaniline	500	500	U *
Dimethylphthalate	250	250	U *
2,6-Dinitrotoluene	250	250	U *
Acenaphthylene	250	250	U *
3-Nitroaniline	500	500	U *
Acenaphthene	250	250	\ <u>U</u> *
2,4-Dinitrophenol	500	500	U *
4-Nitrophenol	500	500	U *
Dibenzofuran	250	250	U *
2,4-Dinitrotoluene	250	250	บ *

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Δ1

Matrix: Water

Units:

: ug/L:

4	9	•	-

EPA SAMPLE No.		F5MP0DL	
STATION LOCATION		MW-14	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Diethylphthalate	250	250	U *
Fluorene	250	250	U *
4-Chlorophenyl-phenylether	250	250	U *
4-Nitroaniline	500	500	U *
4,6-Dinitro-2-methylphenol	500	500	U *
N-Nitrosodiphenylamine	250	250	U *
1,2,4,5-Tetrachlorobenzene	250	250	Ü *
4-Bromophenyl-phenylether	250	250	U * _
Hexachlorobenzene	250	250	U *
Atrazine	250	250	U *
Pentachlorophenol	500	500	U *
Phenanthrene	250	250	U *
Anthracene	250	250	U *
Carbazole	250	250	U *
Di-n-butylphthalate	250	250	U *
Fluoranthene	250	250	U *
Pyrene	250	250	U *
Butylbenzylphthalate	250	250	U *
3,3'-Dichlorobenzidine	250	250	U *
Benzo(a)anthracene	250	250	U *
Chrysene	250	250	U *
Bis(2-ethylhexyl)phthalate	250	250	U *
Di-n-octylphthalate	250	250	U *
Benzo(b)fluoranthene	250	250	U *
Benzo(k)fluoranthene	250	250	[υ *.
Benzo(a)pyrene	250	250	U * .
Indeno(1,2,3-cd)pyrene	250	250	U *
Dibenzo(a,h)anthracene	250	250	U *
Benzo(g,h,l)perylene	250	250	U *
2,3,4,6-Tetrachlorophenol	250	250	U *.

Volume (ml):

1000

Dilution Factor:

50

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP0 (SIN	1)
STATION LOCATION		MW-14	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	1.0	240	*
2-Methylnaphthalene	1.0	140	*
Acenaphthylene	1.0	1.0	U
Acenaphthene	1.0	1.0	U ·
Fluorene	1.0	0.49	LJ
Pentachlorophenol	2.0	2.0	Įυ
Phenanthrene	1.0	1.0	U
Anthracene	1.0	1.0	Įυ
Fluoranthene	1.0	1.0	U
Pyrene	1.0	1.0	U
Benzo(a)anthracene	1.0	1.0	lu
Chrysene	1.0	1.0	U
Benzo(b)fluoranthene	1.0	1.0	U
Benzo(k)fluoranthene	1.0	1.0	U
Benzo(a)pyrene	1.0	1.0	lυ
Indeno(1,2,3-cd)pyrene	1.0	1.0	U
Dibenzo(a,h)anthracene	1.0	1.0	Įυ
Benzo(g,h,l)perylene	1.0	1.0	U

Volume (ml):

1000

Dilution Factor:

10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP0DL (SIM)		
STATION LOCATION		MW-14	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	40	330	*
2-Methylnaphthalene	40	99	* .
Acenaphthylene	40	40	U *
Acenaphthene	40	40	U *
Fluorene	40	40	U *
Pentachlorophenol	80	80	U *
Phenanthrene	40	40	U *
Anthracene	40	40	U *
Fluoranthene	40	40	U *
Pyrene	40	40	U *
Benzo(a)anthracene	40 .	40	U *
Chrysene	40	40	U *
Benzo(b)fluoranthene	40	40	U *
Benzo(k)fluoranthene	40	40	U *
Benzo(a)pyrene	40	40	U *
Indeno(1,2,3-cd)pyrene	40	40	U *
Dibenzo(a,h)anthracene	40	40	U *
Benzo(g,h,l)perylene	40	40	U *

Volume (ml):

1000

Dilution Factor:

400

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	I	F5MP1	
STATION LOCATION		MW-16	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	200	200	U
Aniline	200	200	U ·
Benzaldehyde	100	100	υ
Phenol	100	100	U
Bis(2-Chloroethyl)ether	100	100	U
2-Chlorophenol	100	100	U
2-Methylphenol	100	100	lυ
2,2'-Oxybis(1-chloropropane)	100	100	υ ⁻
Acetophenone	100	100	U
4-Methylphenol	100	100	U
N-Nitroso-di-n-propylamine	100	100	U
Hexachloroethane	100	100	υ
Nitrobenzene	100	100	υ
Isophorone	100	100	υ
2-Nitrophenol	100	100	υ
2,4-Dimethylphenol	100	100	U
Bis(2-chloroethoxy)methane	100	100	U
2,4-Dichlorophenol	100	100	lu
Naphthalene	100	12	*
4-Chloroaniline	100	100	lu
Hexachlorobutadiene	100	100	U *
Caprolactam	100	100	U .
4-Chloro-3-methylphenol	100	100	U
2-Methylnaphthalene	100	100	U *
Hexachlorocyclopentadiene	100	100	lυ
2,4,6-Trichlorophenol	100	100	U
2,4,5-Trichlorophenol	100	100	lu
1,1'-Biphenyl	100	100	lu
2-Chloronaphthalene	100	100	lu -
2-Nitroaniline	200	200	U
Dimethylphthalate	100	100	U
2,6-Dinitrotoluene	100	100	U
Acenaphthylene	100	100	U *
3-Nitroaniline	200	200	U
Acenaphthene	100	100	U *
2,4-Dinitrophenol	200	200	U
4-Nitrophenol	200	200	U
Dibenzofuran	100	100	U
2,4-Dinitrotoluene	100	100	U

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP1	
STATION LOCATION		MW-16	
:	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Diethylphthalate	100	100	U
Fluorene	100	100	U *
4-Chlorophenyl-phenylether	100	100	Įυ
4-Nitroaniline	200	200	U
4,6-Dinitro-2-methylphenol	200	200	U
N-Nitrosodiphenylamine	100	100	U
1,2,4,5-Tetrachlorobenzene	100	100	υ
4-Bromophenyl-phenylether	100	100	U
Hexachlorobenzene	100	100	U
Atrazine	100	100	υ
Pentachlorophenol	200	200	U * .
Phenanthrene	100	100	U *
Anthracene	100	100	U *
Carbazole	100	100	U
Di-n-butylphthalate	100	100	U
Fluoranthene	100	100	U *
Pyrene	100	100	U *
Butylbenzylphthalate	100	100	U
3,3'-Dichlorobenzidine	100	100	U
Benzo(a)anthracene	100	100	U *
Chrysene	100	100	U * ·
Bis(2-ethylhexyl)phthalate	100	100	U
Di-n-octylphthalate	100	100	U
Benzo(b)fluoranthene	100	100	U *
Benzo(k)fluoranthene	100	100	U *
Benzo(a)pyrene	100	100	U *
Indeno(1,2,3-cd)pyrene	100	100	U *
Dibenzo(a,h)anthracene	100	100	U *
Benzo(g,h,1)perylene	100	100	U *
2,3,4,6-Tetrachlorophenol	100	100	U

Volume (ml):

1000

Dilution Factor:

20

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	T	F5MP1 (SIM	1)
STATION LOCATION		MW-16	·
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	2.0	8.1	*
2-Methylnaphthalene	2.0	2.7	
Acenaphthylene	2.0	2.0	Įυ
Acenaphthene	2.0	2.0	U
Fluorene	2.0	2.0	ļυ
Pentachlorophenol	4.0	4.0	Įυ
Phenanthrene	2.0	2.0	U
Anthracene	2.0	2.0	Įυ
Fluoranthene	2.0	2.0	U
Pyrene	2.0	2.0	U
Benzo(a)anthracene	2.0	2.0	. ∤U ;
Chrysene	2.0	2.0	U
Benzo(b)fluoranthene	2.0	2.0	Įυ
Benzo(k)fluoranthene	2.0	2.0	U
Benzo(a)pyrene	2.0	2.0	U
Indeno(1,2,3-cd)pyrene	2.0	2.0	\U
Dibenzo(a,h)anthracene	2.0	2.0	U
Benzo(g,h,l)perylene	2.0	2.0	U.

Volume (ml):

1000

Dilution Factor:

20

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	<u> </u>	F5MP2	
STATION LOCATION		MW-17	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	10	10	U
Aniline	10	10	U
Benzaldehyde	5.0	5.0	U
Phenol	5.0	7.2	
Bis(2-Chloroethyl)ether	5.0	5.0	U
2-Chlorophenol	5.0	5.0	Įυ
2-Methylphenol	5.0	5.0	u·
2,2'-Oxybis(1-chloropropane)	5.0	5.0	lu
Acetophenone	5.0	5.0	lu
4-Methylphenol	5.0	5.0	ับ
N-Nitroso-di-n-propylamine	5.0	5.0	U
Hexachloroethane	5.0	5.0	U
Nitrobenzene	5.0	5.0	lυ
Isophorone	5.0	5.0	lū
2-Nitrophenol	5.0	5.0	lū
2,4-Dimethylphenol	5.0	5.0	U
Bis(2-chloroethoxy)methane	5.0	5.0	ĺΰ
2,4-Dichlorophenol	5.0	5.0	lū
Naphthalene	5.0	52	*
4-Chloroaniline	5.0	5.0	υ
Hexachlorobutadiene	5.0	5.0	U *
Caprolactam	5.0	5.0	lū
4-Chloro-3-methylphenol	5.0	5.0	lυ
2-Methylnaphthalene	5.0	18	
Hexachlorocyclopentadiene	5.0	5.0	υ
2,4,6-Trichlorophenol	5.0	5.0	U
2,4,5-Trichlorophenol	5.0	5.0	บ
1,1'-Biphenyl	5.0	0.58	LJ
2-Chloronaphthalene	5.0	5.0	lu
2-Nitroaniline	10	10	Ū
Dimethylphthalate	5.0	5.0	ľů
2,6-Dinitrotoluene	5.0	5.0	Įŭ
Acenaphthylene	5.0	5.0	Ū *
3-Nitroaniline	10	10	Ιū
Acenaphthene	5.0	5.0	ľū∗
2,4-Dinitrophenol	10	10	ľů
4-Nitrophenol	10	10	ľŭ
Dibenzofuran	5.0	5.0	lυ
2,4-Dinitrotoluene	5.0	5.0	lū .

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	l	F5MP2	
STATION LOCATION		MW-17	
	ADJ		1
Semivolatile	CRQL	RESULT	FLAG
Diethylphthalate	5.0	5.0	U
Fluorene	5.0	0.46	*
4-Chlorophenyl-phenylether	5.0	5.0	U
4-Nitroaniline	10	10	U
4,6-Dinitro-2-methylphenol	10	10	U
N-Nitrosodiphenylamine	5.0	5.0	∖ U
1,2,4,5-Tetrachlorobenzene	5.0	5.0	U
4-Bromophenyl-phenylether	5.0	5.0	U
Hexachlorobenzene	5.0	5.0	U
Atrazine	5.0	5.0	U
Pentachlorophenol	10	10	U *
Phenanthrene	5.0	0.29	*
Anthracene	5.0	5.0	U *
Carbazole	5.0	5.0	U
Di-n-butylphthalate	5.0	5.0	U
Fluoranthene	5.0	5.0	\U *
Pyrene	5.0	5.0	U *
Butylbenzylphthalate	5.0	5.0	U
3,3'-Dichlorobenzidine	5.0	5.0	U
Benzo(a)anthracene	5.0	5.0	U *
Chrysene	5.0	5.0	U *
Bis(2-ethylhexyl)phthalate	5.0	2.0	LJ
Di-n-octylphthalate	5.0	5.0	U
Benzo(b)fluoranthene	5.0	5.0	U *
Benzo(k)fluoranthene	5.0	5.0	U *
Benzo(a)pyrene	5.0	5.0]U *
Indeno(1,2,3-cd)pyrene	5.0	5.0	U *
Dibenzo(a,h)anthracene	5.0	5.0	U *
Benzo(g,h,l)perylene	5.0	5.0	U *
2,3,4,6-Tetrachlorophenol	5.0	5.0	U

Volume (ml):

1000

Dilution Factor:

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	T	F5MP2 (SIN	1)
STATION LOCATION		MW-17	,
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	0.10	61	*
2-Methylnaphthalene	0.10	49	*
Acenaphthylene	0.10	0.10	U
Acenaphthene	0.10	0.23	
Fluorene	0.10	0.33	
Pentachlorophenol	0.20	0.20	Įυ
Phenanthrene	0.10	0.13	
Anthracene	0.10	0.10	U
Fluoranthene	0.10	0.10	Įυ
Pyrene	0.10	0.10	U
Benzo(a)anthracene	0.10	0.10	U .
Chrysene	0.10	0.10	U
Benzo(b)fluoranthene	0.10	0.10	U
Benzo(k)fluoranthene	0.10	0.10	Įυ
Benzo(a)pyrene	0.10	0.10	Įυ
Indeno(1,2,3-cd)pyrene	0.10	0.10	U
Dibenzo(a,h)anthracene	0.10	0.10	ļυ
Benzo(g,h,l)perylene	0.10	0.10	ĮU

Volume (ml):

1000

Dilution Factor:

Case No.:

42498

SDG:

F5MP0

Reviewer: T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MP2DL (S	SIM)
STATION LOCATION		MW-17	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	5.0	37	*
2-Methylnaphthalene	5.0	24	*
Acenaphthylene	5.0	5.0	U *
Acenaphthene	5.0	5.0	Ū*
Fluorene	5.0	5.0	Ū*
Pentachlorophenol	10	10	U *
Phenanthrene	5.0	5.0	U *
Anthracene	5.0	5.0	U *
Fluoranthene	5.0	5.0	U *
Pyrene	5.0	5.0	U *
Benzo(a)anthracene	5.0	5.0	U *
Chrysene	5.0	5.0	υ *
Benzo(b)fluoranthene	5.0	5.0	l∪ *
Benzo(k)fluoranthene	5.0	5.0	lυ *
Benzo(a)pyrene	5.0	5.0	lu * '
Indeno(1,2,3-cd)pyrene	5.0	5.0	lu *
Dibenzo(a,h)anthracene	5.0	5.0	ļυ *
Benzo(g,h,l)perylene	5.0	5.0	lu *

Volume (ml):

1000

Dilution Factor:

50

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

 ΔA

Matrix: Water

Units: ug

ug/L

EPA SAMPLE No.	F5MP2RE (SIM)		
STATION LOCATION		MW-17	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	0.10	62	*
2-Methylnaphthalene	0.10	47	*
Acenaphthylene	0.10	0.10	U *
Acenaphthene	0.10	0.21	*
Fluorene	0.10	0.32	*
Pentachlorophenol	0.20	0.20	U *
Phenanthrene	0.10	0.13	*
Anthracene	0.10	0.10	U *
Fluoranthene	0.10	0.10	บ *
Pyrene	0.10	0.10	U *
Benzo(a)anthracene	0.10	0.10	U *
Chrysene	0.10	0.10	U *
Benzo(b)fluoranthene	0.10	0.10	U *
Benzo(k)fluoranthene	0.10	0.10	ีบ *
Benzo(a)pyrene	0.10	0.10	U *
Indeno(1,2,3-cd)pyrene	0.10	0.10	U *
Dibenzo(a,h)anthracene	0.10	0.10	υ *
Benzo(g,h,I)perylene	0.10	0.10	U *

Volume (ml):

1000

Dilution Factor:

1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer: T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MP3	
STATION LOCATION		MW-18	T
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	100	100	U
Aniline	100	100	U
Benzaldehyde	50	50	U
Phenol	50	92	
Bis(2-Chloroethyl)ether	50	50	U
2-Chlorophenol	50	50	U
2-Methylphenol	50	360	
2,2'-Oxybis(1-chloropropane)	50	50	ļυ
Acetophenone	50	9.5	LJ
4-Methylphenol	50	190	
N-Nitroso-di-n-propylamine	50	50	U
Hexachloroethane	50	50	υ
Nitrobenzene	50	50	U
Isophorone	50	50	U
2-Nitrophenol	50	50	υ
2,4-Dimethylphenol	50	870	*
Bis(2-chloroethoxy)methane	50	50	lυ
2,4-Dichlorophenol	50	50	lυ
Naphthalene	50	190	*
4-Chloroaniline	50	50	U
Hexachlorobutadiene	50	50	U *
Caprolactam	50	50	U
4-Chloro-3-methylphenol	50	50	υ
2-Methylnaphthalene	50	51	
Hexachlorocyclopentadiene	50	50	U
2,4,6-Trichlorophenol	50	50	U
2,4,5-Trichlorophenol	50	50	U
1,1'-Biphenyl	50	50	U
2-Chloronaphthalene	50	50	U '
2-Nitroaniline	100	100	lu . '
Dimethylphthalate	50	50	U
2,6-Dinitrotoluene	50 -	50	U -
Acenaphthylene	50	50	U *
3-Nitroaniline	100	100	Ū
Acenaphthene	50	50	[บ *
2,4-Dinitrophenol	100	100	U .
4-Nitrophenol	100	100	U
Dibenzofuran	50	50	U
2,4-Dinitrotoluene	50	50	U

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

		E EL 100	
EPA SAMPLE No.		F5MP3	
STATION LOCATION		MW-18	
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	50	50	U
Fluorene	50	50	<u> </u> U *
4-Chlorophenyl-phenylether	50	50	ļ <u>u</u>
4-Nitroaniline	100	100	ĮŲ.
4,6-Dinitro-2-methylphenol	100	100	ĮŲ.
N-Nitrosodiphenylamine	50	50	U
1,2,4,5-Tetrachlorobenzene	50	50	U
4-Bromophenyl-phenylether	50	50	U
Hexachlorobenzene	50	50	U
Atrazine	50	50	U
Pentachlorophenol	100	100	U *
Phenanthrene	50	50	U *
Anthracene	50	50	U *
Carbazole	50	50	U
Di-n-butylphthalate	50	50	U .
Fluoranthene	50	50	\U *
Pyrene	50	50	U *
Butylbenzylphthalate	50	50	U
3,3'-Dichlorobenzidine	50	50	U
Benzo(a)anthracene	50	50	U *
Chrysene	50	50	U *
Bis(2-ethylhexyl)phthalate	50	50	U -
Di-n-octylphthalate	50	50	U
Benzo(b)fluoranthene	50	50	U *
Benzo(k)fluoranthene	50	50	U *
Benzo(a)pyrene	50	50	U *
Indeno(1,2,3-cd)pyrene	50	50	U *
Dibenzo(a,h)anthracene	50	50	∪ *
Benzo(g,h,l)perylene	50	50	U *
2,3,4,6-Tetrachlorophenol	50	50	U

Volume (ml):

1000

Dilution Factor:

10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

T. Fan Reviewer:

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MP3DL	
STATION LOCATION		MW-18	<u> </u>
	ADJ		
Semivolatile `	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	200	200	U *
Aniline	200	200	U *
Benzaldehyde	100	100	U *
Phenol	100	51	*
Bis(2-Chloroethyl)ether	100	100	U *
2-Chlorophenol	100	100	U * 🚟
2-Methylphenol	100	210	*
2,2'-Oxybis(1-chloropropane)	100	100	U *
Acetophenone	100	100	U"*
4-Methylphenol	100	100	*
N-Nitroso-di-n-propylamine	100	100	U *
Hexachloroethane	100	100	U *
Nitrobenzene	100	100	U *
Isophorone	100	100	U *
2-Nitrophenol	100	100	U *
2,4-Dimethylphenol	100	500	
Bis(2-chloroethoxy)methane	100	100 ⁻	U *
2,4-Dichlorophenol	100	100	U *
Naphthalene	100	110	*
4-Chloroaniline	100	100	U *
Hexachlorobutadiene	100	100	U *
Caprolactam	100	100	U *
4-Chloro-3-methylphenol	100	100	U *
2-Methylnaphthalene	100	31	*
Hexachlorocyclopentadiene	100	100	U *
2,4,6-Trichlorophenol	100	100	U *
2,4,5-Trichlorophenol	100	100	U *
1,1'-Biphenyl	100	100	U *
2-Chloronaphthalene	100	100	U *
2-Nitroaniline	200	200	U *
Dimethylphthalate	100	100	U *
2,6-Dinitrotoluene	100	100	U *
Acenaphthylene	100	100	U *
3-Nitroaniline	200	200	U *
Acenaphthene	100	100	U *
2,4-Dinitrophenol	200	200	U *
4-Nitrophenol	200	200	U *
Dibenzofuran	100	100	U *
2,4-Dinitrotoluene	100	100	บ *

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MP3DL	
STATION LOCATION		MW-18	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Diethylphthalate	100	100	U*
Fluorene	100	100	U *
4-Chlorophenyl-phenylether	100	100	U *
4-Nitroaniline	200	200	U *
4,6-Dinitro-2-methylphenol	200	200	[U *
N-Nitrosodiphenylamine	100	100	U *
1,2,4,5-Tetrachlorobenzene	100	100	U *
4-Bromophenyl-phenylether	100	100	U *
Hexachlorobenzene	100	100	U *
Atrazine	100	100	U *
Pentachlorophenol	200	200	U *
Phenanthrene	100	100	U *
Anthracene	100	100	U *
Carbazole	100	100	U *
Di-n-butylphthalate	100	100	U *
Fluoranthene	100	100	U *
Pyrene	100	100	U *
Butylbenzylphthalate	100	100	U *
3,3'-Dichlorobenzidine	100	100	U *
Benzo(a)anthracene	100	100	U * .
Chrysene	100	100	∪ *
Bis(2-ethylhexyl)phthalate	100	100	U *
Di-n-octylphthalate	100	100	υ* ·
Benzo(b)fluoranthene	100	100	U.*
Benzo(k)fluoranthene	100	100	U *
Benzo(a)pyrene	100	100	U *
Indeno(1,2,3-cd)pyrene	100	100	U * .
Dibenzo(a,h)anthracene	100	100	U * .
Benzo(g,h,l)perylene	100	100	U *
2,3,4,6-Tetrachlorophenol	100	100	U *

Volume (ml):

1000

Dilution Factor:

20

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP3 (SIM)		
STATION LOCATION		JMW-18	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	1.0	43	. *
2-Methylnaphthalene	1.0	25	*
Acenaphthylene	1.0	1.0	U
Acenaphthene	1.0	1.0	U
Fluorene	1.0	1.0	U
Pentachlorophenol	2.0	2.0	U
Phenanthrene	1.0	1.0	U
Anthracene	1.0	1.0	U
Fluoranthene	1.0	1.0	U ·
Pyrene	1.0	1.0	U
Benzo(a)anthracene	1.0	1.0	Įυ
Chrysene	1.0	1.0	Įυ
Benzo(b)fluoranthene	1.0	1.0	Įυ
Benzo(k)fluoranthene	1.0	1.0	Įυ
Benzo(a)pyrene	1.0	1.0	Įυ
Indeno(1,2,3-cd)pyrene	1.0	1.0	υ ˙
Dibenzo(a,h)anthracene	1.0	1.0	Įυ
Benzo(g,h,l)perylene	1.0	1.0	Įυ

Volume (ml):

1000

Dilution Factor:

10

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MP3DL (SIM)		
STATION LOCATION		MW-18	
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	20	130	*
2-Methylnaphthalene	20	54	*
Acenaphthylene	20	20	U *
Acenaphthene	20	20	U *
Fluorene	20	20	U *.
Pentachlorophenol	40	40	U *
Phenanthrene	20	20	บ *
Anthracene	20	20	U *
Fluoranthene	20	20	U *
Pyrene	20	20	U *
Benzo(a)anthracene	20	20	U *
Chrysene	20	20	U *
Benzo(b)fluoranthene	20	20	U *
Benzo(k)fluoranthene	20	20	U *
Benzo(a)pyrene	20	20	U *
Indeno(1,2,3-cd)pyrene	20	20	U *
Dibenzo(a,h)anthracene	20	20	U *
Benzo(g,h,l)perylene	20	20	U *

Volume (ml):

1000

Dilution Factor:

200

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0 Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	Ï	F5MP3RE (SIM)		
STATION LOCATION		MW-18	ĺ	
	ADJ			
Semivolatile	CRQL	RESULT	FLAG	
Naphthalene	1.0	50	*	
2-Methylnaphthalene	1.0	30	*	
Acenaphthylene	1.0	1.0	U *	
Acenaphthene	1.0	1.0	U *	
Fluorene	1.0	1.0	U *	
Pentachlorophenol	2.0	2.0	U *	
Phenanthrene	1.0	1.0	U *	
Anthracene	1.0	1.0	U *	
Fluoranthene	1.0	1.0	U *	
Pyrene	1.0	1.0	U *	
Benzo(a)anthracene	1.0	1.0	U *	
Chrysene	1.0	1.0	U *	
Benzo(b)fluoranthene	1.0	1.0	U *	
Benzo(k)fluoranthene	1.0	1.0	U *	
Benzo(a)pyrene	1.0	1.0	U *	
Indeno(1,2,3-cd)pyrene	1.0	1.0	U *	
Dibenzo(a,h)anthracene	1.0	1.0	U *	
Benzo(g,h,l)perylene	1.0	1.0	U *	

Volume (ml):

1000

Dilution Factor;

10

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

 ΔA

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	F5MQ4		
STATION LOCATION		MW-14-D	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	100	100	U
Aniline	100	100	υ .
Benzaldehyde	50	50	U
Phenol	50	1600	*
Bis(2-Chloroethyl)ether	50	50	U
2-Chlorophenol	50	50	U
2-Methylphenol	50	1600	*
2,2'-Oxybis(1-chloropropane)	50	50	U
Acetophenone	50	50	U
4-Methylphenol	50	1100	*
N-Nitroso-di-n-propylamine	50	50	U
Hexachloroethane	50	50	U
Nitrobenzene	50	50	U ,
Isophorone	50	50	U
2-Nitrophenol	50	50	U
2,4-Dimethylphenol	50	840	*
Bis(2-chloroethoxy)methane	50	50	U
2,4-Dichlorophenol	50	50	U
Naphthalene	50	320	
4-Chloroaniline	50	50	U
Hexachlorobutadiene	50	50	U
Caprolactam	50	50	U
4-Chloro-3-methylphenol	50	50	U
2-Methylnaphthalene	50	75	
Hexachlorocyclopentadiene	50	50	U
2,4,6-Trichlorophenol	50	50	U
2,4,5-Trichlorophenol	50	50	υ
1,1'-Biphenyl	50	4.8	LJ
2-Chloronaphthalene	50	50	U
2-Nitroaniline	100	100	U
Dimethylphthalate	50	50	υ .
2,6-Dinitrotoluene	50	50	U .
Acenaphthylene	50	50	U *
3-Nitroaniline	100	100	υ
Acenaphthene	50	50	U *
2,4-Dinitrophenol	100	100	U
4-Nitrophenol	100	100	U
Dibenzofuran	50	50	U
2,4-Dinitrotoluene	50	50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

T. Fan Reviewer

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ4	
STATION LOCATION		MW-14-D	
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Diethylphthalate	50	50	U
Fluorene	50	50	U *
4-Chlorophenyl-phenylether	50	50	U
4-Nitroaniline	100	100	U
4,6-Dinitro-2-methylphenol	100	100	U
N-Nitrosodiphenylamine	 50	50	U
1,2,4,5-Tetrachlorobenzene	50	50	U ·
4-Bromophenyl-phenylether	50	50	ĮU
Hexachlorobenzene	50	50	U
Atrazine	50	50	U .
Pentachlorophenol	100	100	U *
Phenanthrene	50	50	U *
Anthracene	50	50	U *
Carbazole	50	50	U
Di-n-butylphthalate	50	50	U
Fluoranthene	50	50	U *
Pyrene	50	50	U *
Butylbenzylphthalate	50	50	U
3,3'-Dichlorobenzidine	50	50	U
Benzo(a)anthracene	50	50	U*
Chrysene	50	50	U *
Bis(2-ethylhexyl)phthalate	50	50	U
Di-n-octylphthalate	50	50	U
Benzo(b)fluoranthene	50	50	U *
Benzo(k)fluoranthene	50	50	U *
Benzo(a)pyrene	50	50]U *
Indeno(1,2,3-cd)pyrene	50	50	U *
Dibenzo(a,h)anthracene	50	50	U *
Benzo(g,h,l)perylene	50	50	U *
2,3,4,6-Tetrachlorophenol	50	50	U

Volume (ml):

1000

Dilution Factor:

10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results. Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		F5MQ4DL	
STATION LOCATION		IMW-14-D	
317111017 1007111011	ADJ		
Semivolatile	CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	500	500	U *
Aniline	500	500	U *
Benzaldehyde	250	250	Ū *
Phenol	250	1000	
Bis(2-Chloroethyl)ether	250	250	U *
2-Chlorophenol	250	250	U *
2-Methylphenol	250	1000	
2,2'-Oxybis(1-chloropropane)	250	250	บ *
Acetophenone	250	250	Ū *
4-Methylphenol	250	700	
N-Nitroso-di-n-propylamine	250	250	U *
Hexachloroethane	250	250	υ *
Nitrobenzene	250	250	Ū *
Isophorone	250	250	υ *
2-Nitrophenol	250	250	U *
2,4-Dimethylphenol	250	530	
Bis(2-chloroethoxy)methane	250	250	υ *
2,4-Dichlorophenol	250	250	U *
Naphthalene	250	210	*
4-Chloroaniline	250	250	υ *
Hexachlorobutadiene	250	250	υ *
Caprolactam	250	250	U *
4-Chioro-3-methylphenol	250	250	U *
2-Methylnaphthalene	250	52	*
Hexachlorocyclopentadiene	250	250	U *
2,4,6-Trichlorophenol	250	250	U *
2,4,5-Trichlorophenol	250	250	U *
1,1'-Biphenyl	250	250	U *
2-Chloronaphthalene	250	250	บ *
2-Nitroaniline	500	500	υ *
Dimethylphthalate	250	250	U *
2,6-Dinitrotoluene	250	250	U *
Acenaphthylene	250	250	U *
3-Nitroaniline	500	500	υ *
Acenaphthene	250	250	U *
2,4-Dinitrophenol	500	500	U *
4-Nitrophenol	500	500	Ū *
Dibenzofuran	250	250	Ū*
2,4-Dinitrotoluene	250	250	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ4DL				
STATION LOCATION	1	MW-14-D				
	ADJ					
Semivolatile	CRQL	RESULT	FLAG			
Diethylphthalate	250	250	U *			
Fluorene	250	250	U *			
4-Chlorophenyl-phenylether	250	250	∪ *			
4-Nitroaniline	500	500	∪ *			
4,6-Dinitro-2-methylphenol	500	500	U *			
N-Nitrosodiphenylamine	250	250	lu *			
1,2,4,5-Tetrachlorobenzene	250	250	U *			
4-Bromophenyl-phenylether	250	250	U *			
Hexachlorobenzene	250	250	U *			
Atrazine	250	250	U *			
Pentachiorophenol	500	500	U *			
Phenanthrene	250	250	U *			
Anthracene	250	250	U *			
Carbazole	250	250	U *			
Di-n-butylphthalate	250	250	U *			
Fluoranthene	250	250	\υ*			
Pyrene	250	250	U *			
Butylbenzylphthalate	250	250	U *			
3,3'-Dichlorobenzidine	250	250	U.*			
Benzo(a)anthracene	250	250	U *			
Chrysene	250	250	U *			
Bis(2-ethylhexyl)phthalate	250	250	U *			
Di-n-octylphthalate	250	250	U *			
Benzo(b)fluoranthene	250	250	U *			
Benzo(k)fluoranthene	250	250	U *			
Benzo(a)pyrene	250	250	U *			
Indeno(1,2,3-cd)pyrene	250	250	U *			
Dibenzo(a,h)anthracene	250	250	U *			
Benzo(g,h,l)perylene	250	250	U *			
2,3,4,6-Tetrachlorophenol	250	250	U *			

Volume (ml):

1000

Dilution Factor:

50

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG:

F5MP0

Reviewer:

T. Fan

Laboratory:

Α4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		F5MQ4 (SIM)	
STATION LOCATION		MW-14-D	
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	1.0	150	*
2-Methylnaphthalene	1.0	20	*
Acenaphthylene	1.0	1.0	U
Acenaphthene	1.0	1.0	U
Fluorene	1.0	1.0	U
Pentachlorophenol	2.0	2.0	U
Phenanthrene	1.0	1.0	U
Anthracene	1.0	1.0	U
Fluoranthene	1.0	1.0	U
Pyrene	1.0	1.0	U I
Benzo(a)anthracene	1.0	1.0	U
Chrysene	1.0	1.0	U
Benzo(b)fluoranthene	1.0	1.0	U
Benzo(k)fluoranthene	1.0	1.0	U
Benzo(a)pyrene	1.0	1.0	U
Indeno(1,2,3-cd)pyrene	1.0	1.0	U
Dibenzo(a,h)anthracene	1.0	1.0	U
Benzo(g,h,l)perylene	1.0	1.0	U

Volume (ml):

1000

Dilution Factor:

10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.:

42498

SDG: F5MP0

Reviewer:

T. Fan

Laboratory:

ÀΔ

Matrix: Water

Units:

ug/L

EPA SAMPLE No.	1	F5MQ4DL (S	SIM)
STATION LOCATION		MW-14-D	T
	ADJ		
Semivolatile	CRQL	RESULT	FLAG
Naphthalene	40	250	*
2-Methylnaphthalene	40	68	*
Acenaphthylene	40	40	U *
Acenaphthene	. 40	40	U.*
Fluorene	40	40	U * ·
Pentachlorophenol	80	80	U *
Phenanthrene	40	. 40	U *
Anthracene	40	40	U *
Fluoranthene	40	40	U *
Pyrene	40	40	U *
Benzo(a)anthracene	40	40	U *
Chrysene	40	40	U *
Benzo(b)fluoranthene	40	40	U *
Benzo(k)fluoranthene	40	40	U *
Benzo(a)pyrene	40	40	U *
Indeno(1,2,3-cd)pyrene	40	40	U *
Dibenzo(a,h)anthracene	40	40	U *
Benzo(g,h,i)peryleпе	40	40	U *

Volume (ml):

1000

Dilution Factor:

400

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 42498 SDG No. F5MP0 SDG Nos. To Follow Mod. Ref No. 1359.6 & 1859.1 Date Rec. .6/1/12 EPA Lab ID: **ORIGINALS** A4 YES NO N/A CUSTODY SEALS Lab Location: The Woodlands, TX Region: 6 Audit No.: 42498/F5MP0 1. Present on package? X Re_Submitted CSF? X Х Yes No 2. Intact upon receipt? Box No(s): FORM DC-2 COMMENTS: 3. Numbering scheme accurate? Х X 4. Are enclosed documents listed? Description 9, 10 One COC Record was not signed/dated by laboratory 5. Are listed documents enclosed? Χ personnel. The laboratory was contacted for resolution. FORM DC-1 Others The airbill number reported on the Form DC-1 on p. 1733 was 6. Present? X illegible, and the auditor made the necessary correction. 7. Complete? X 8. Accurate? Х TRAFFIC REPORT /CHAIN-OF-CUSTODY RECORD(s) 9. Signed? 10. Dated? AIRBILLS/AIRBILL STICKER 11 Present? Χ 12. Signed? Χ X 13. Dated? SAMPLE TAGS 14. Does DC-1 list tags as being included? Χ 15, Present? Х OTHER DOCUMENTS 16. Complete? X Х 17. Legible? 18. Original? Х 18a. If "NO", does the copy indicate Χ where original documents are located? Over for additional comments. Audited by: Tseng-Ying Fan / ESAT Data Reviewer Date 7/12/12 Date Audited by: Printed Name/Title Signature

Page 1 of 2

In Reference To Case No(s):
42498 SDG: F5MP0 (0-0882)

Contract Laboratory Program REGIONAL/LABORATORY COMMUNICATION SYSTEM Resubmission Request

Laboratory Name:

Lab Contact:

Region:

Regional Contact:

Raymond Flores - EPA

ESAT Reviewer:

Tseng-Ying Fan - ESAT

In reference to data for the following fraction(s):

CSF Deliverables

TVOA

BNA

BNA-SIM

Summary of Questions/Issues:

A. CSF Deliverables

The Sample Custodian did not sign/date the COC Record associated with BNA sample F5MQ4 (p. 24). Please submit a signed and dated copy.

B. TVOA

1. TCL compound 1,2,4-trichlorobenzene was omitted from the IC quantitation reports on pp. 699 and 706. Please resubmit these pages to report the missing data.

2. Sample F5MP6:

- (a) The reported target compounds had RTs almost identical to those in the associated CCV except for tert-butylbenzene. The spectra for tert-butylbenzene also did not appear to meet the relative intensity criteria for identification. Please provide a better spectrum or reconsider the identification of this compound.
- (b) The elution order for DMCs benzene-d6 and 1,2-dichloroethane-d4 was reversed compared to the associated opening CCV. Please double check the identification for these DMCs and make the necessary correction and resubmission.
- 3. Sample F5MP8: The reported target compounds had almost identical RTs to those in the associated CCV except for 1,2,4trimethylbenzene. Please double check the ID for this analyte. Correct and resubmit data and reporting form as needed.

Resubmission Request

Continuation Page: 2

Laboratory/Contact: A4/ Laxmi Teerupalli

In Reference to Case No.: 42498 SDG: F5MP0

C. BNA

Modified Analysis Request 1859.1 requires that the laboratory select the appropriate ISs and DMCs to be associated with the two MA target compounds and document the selections in the SDG Narrative. Please comply with this requirement and resubmit the SDG Narrative.

D. BNA-SIM

Form 2 (p. 1485): The DMC recoveries for SDMC18 were erroneously reported under the column for SDMC17, and vice versa. Please correct and resubmit this Form 2.

NOTE: Any laboratory resubmission should be submitted either as an addendum to the original CSF with a revised Form DC-2 or submitted as a new CSF with a new Form DC-2 except for replacement pages (SOM01.2, p. B-33, sec. 2.6.3). Custody seals are required for all such shipments.

Please respond to the above items within 7 days by e-mail to Flores. Raymond@epa.gov and by regular mail to:

Mr. Raymond Flores
U.S. EPA Region 6 Laboratory
10625 Fallstone Road
Houston, TX 77099

If you have any questions, please contact Mr. Flores at 281-983-2139.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

Page 109 of

USEPA CLP Organics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7983 6077 0990

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498 No: 6-051012-151441-0009

Lab: A4 Scientific Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coli. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP0	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474000 (HCL pH<2), 6- 474001 (HCL pH<2), 6- 474002 (HCL pH<2), 6- 474003 (HCL pH<2), 6- 474004 (HCL pH<2), 6- 474005 (HCL pH<2) (6)	MW-14	05/10/2012 09:05	MF5MP0	Field Sample
F5MP1	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474016 (HCL pH<2), 6- 474017 (HCL pH<2), 6- 474018 (HCL pH<2), 6- 474019 (HCL pH<2), 6- 474020 (HCL pH<2), 6- 474021 (HCL pH<2) (6)	MW-16	05/10/2012 07:35	MF5MP1	Field Sample
F5MP2	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474028 (HCL pH<2), 6- 474029 (HCL pH<2), 6- 474030 (HCL pH<2), 6- 474031 (HCL pH<2), 6- 474032 (HCL pH<2), 6- 474033 (HCL pH<2) (6)	MW-17	05/10/2012 12:19	MF5MP2	Field Sample
F5MP3	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474039 (HCL pH<2), 6- 474040 (HCL pH<2), 6- 474041 (HCL pH<2), 6- 474042 (HCL pH<2), 6- 474043 (HCL pH<2), 6- 474044 (HCL pH<2) (6)	MW-18	05/09/2012 17:37	MF5MP3	Field Sample

	Shipment for Case Complete? Y
Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6	Samples Transferred From Chain of Custody #
Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2	

Ĺ	Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
		Jue Coros	5-10-2012	2	<u> </u>							
1												
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											-	
											·	

DateShipped: 5/10/2012 CarrierName: FedEx AirbillNo: 7983 6077 0990

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498 No: 6-051012-151441-0009

Lab: A4 Scientific Lab Contact: Laxmi Teerupalli Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP6	Water/ Jose Flores	Grab	TVOAT-SIM(21), TVOAT- SIM(21), TVOAT-SIM(21), TVOAT-SIM(21), TVOAT- SIM(21), TVOAT-SIM(21)	6-474062 (HCL pH<2), 6- 474063 (HCL pH<2), 6- 474064 (HCL pH<2), 6- 474065 (HCL pH<2), 6- 474066 (HCL pH<2), 6- 474067 (HCL pH<2) (6)	MW-19	05/10/2012 11:20		Field Sample
F5MP9	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474080 (HCL pH<2), 6- 474081 (HCL pH<2), 6- 474082 (HCL pH<2), 6- 474083 (HCL pH<2), 6- 474084 (HCL pH<2), 6- 474085 (HCL pH<2) (6)	MW-22	05/09/2012 16:28		Field Sample
F5MQ6	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474134 (HCL pH<2), 6- 474135 (HCL pH<2), 6- 474136 (HCL pH<2), 6- 474137 (HCL pH<2), 6- 474138 (HCL pH<2), 6- 474139 (HCL pH<2) (6)	TB-2	05/09/2012 21:30		Trip Blank
F5MQ8	Water/ Jose Flores	Grab	TVOAT-SIM(21), TVOAT- SIM(21), TVOAT-SIM(21), TVOAT-SIM(21), TVOAT- SIM(21), TVOAT-SIM(21)	6-474146 (HCL pH<2), 6- 474147 (HCL pH<2), 6- 474148 (HCL pH<2), 6- 474149 (HCL pH<2), 6- 474150 (HCL pH<2), 6- 474151 (HCL pH<2) (6)	FB-2	05/10/2012 07:36		Field Blank

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	kie for	5-10-12		٠.							
	7-5-5-				-						

CHAIN OF CUSTODY RECORD

DateShipped: 5/10/2012 CarrierName: FedEx R & H Oil/Tropicana Energy Superfund Site

AirbillNo: 7983 6076 6288

Case #: 42498

No: 6-050912-222243-0001

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP4	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474050 (HCL pH<2), 6- 474051 (HCL pH<2), 6- 474052 (HCL pH<2), 6- 474053 (HCL pH<2), 6- 474054 (HCL pH<2), 6- 474055 (HCL pH<2) (6)	MW-4	05/09/2012 10:47		Field Sample
F5MP5	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474056 (HCL pH<2), 6- 474057 (HCL pH<2), 6- 474058 (HCL pH<2), 6- 474059 (HCL pH<2), 6- 474060 (HCL pH<2), 6- 474061 (HCL pH<2) (6)	MVV-9	05/09/2012 14:12		Field Sample
F5MP7	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474068 (HCL pH<2), 6- 474069 (HCL pH<2), 6- 474070 (HCL pH<2), 6- 474071 (HCL pH<2), 6- 474072 (HCL pH<2), 6- 474073 (HCL pH<2) (6)	MW-20	05/09/2012 12:02		Field Sample
F5MP8	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474074 (HCL pH<2), 6- 474075 (HCL pH<2), 6- 474076 (HCL pH<2), 6- 474077 (HCL pH<2), 6- 474078 (HCL pH<2), 6- 474079 (HCL pH<2) (6)	MW-21	05/09/2012 15:20		Field Sample

					Shipment for Case Complete? Y
Special Instructions: TVOA+TVOASIM	SOM01.2+MA#1359.6				Samples Transferred From Chain of Custody#
	1 1.1	<u> </u>	· · · · · · · · · · · · · · · · · · ·	· · ·	
Analysis Key: TVOA/T-SIM=TVOA-MA	#1359.6+TVOASIM-SOM	101.2			

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DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7983 6076 6288

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498

No: 6-050912-222243-0001

Lab: A4 Scientific

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MQ0	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-	6-474086 (HCL pH<2), 6- 474087 (HCL pH<2), 6- 474088 (HCL pH<2), 6-	MW-21-D	05/09/2012 15:20		Field Duplicate
			SIM(21), TVÒA/T-SIM(21)	474089 (HCL pH<2), 6- 474090 (HCL pH<2), 6- 474091 (HCL pH<2) (6)			:	
F5MQ1	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-	6-474092 (HCL pH<2), 6- 474093 (HCL pH<2), 6- 474094 (HCL pH<2), 6-	MW-4-D	05/09/2012 10:47		Field Duplicate
			SIM(21), TVOA/T-SIM(21)	474095 (HCL pH<2), 6- 474096 (HCL pH<2), 6- 474097 (HCL pH<2) (6)				
F5MQ5	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21)	6-474128 (HCL pH<2), 6- 474129 (HCL pH<2), 6- 474130 (HCL pH<2), 6- 474131 (HCL pH<2), 6-	TB-1	05/09/2012 07:30	_	Trip Blank
:			31w(21), 140741-31w(21)	474132 (HCL pH<2), 6- 474132 (HCL pH<2), 6- 474133 (HCL pH<2) (6)				
F5MQ7	Water/ Jose Flores	Grab	TVOAT-SIM(21), TVOA/T- SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-	6-474140 (HCL pH<2), 6- 474141 (HCL pH<2), 6- 474142 (HCL pH<2), 6-	FB-1	05/09/2012 16:22		Field Blank
			SIM(21), TVOA/T-SIM(21)	474143 (HCL pH<2), 6- 474144 (HCL pH<2), 6- 474145 (HCL pH<2) (6)				

			Shipment for Case Complete? Y				
Special Instructions: TVOA+TVOASIM SOM01.2+MA#	1359.6	•	Samples Transferred From Chain of Custody	#			
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Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOA	SIM-SOM01.2						

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USEPA CLP Organics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7935 3008 5105

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-172143-0012

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP0	Water/ Jose Flores	Grab	SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21)	6-474006 (Ice 4 C), 6- 474007 (Ice 4 C), 6- 474008 (Ice 4 C), 6- 474009 (Ice 4 C) (4)	MW-14	05/10/2012 09:05	MF5MP0	Field Sample
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Special Instructions: SV/SVSIM SOM01.2+MA	# 1859.1	. :		,	Samples Transferred	From Chain of Cus	stody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859	9.1-SOM01.2		 				

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DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7935 3009 0858

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498

No: 6-051012-172816-0013

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli Lab Phone: 281-292-5277

Organic Matrix/Sampler Analysis/Turnaround Tag/Preservative/Bottles Inorganic Sample Type Coll, Station Collected Sample # Sample # Method Location 6-474022 (Ice 4 C), 6-474023 (Ice 4 C), 6-474024 (Ice 4 C), 6-474025 (Ice 4 C) (4) SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21) MW-16 MF5MP1 F5MP1 Field Sample Water/ Jose Grab 05/10/2012 07:35 Flores

	:	Shipment for Case Complete? Y
Special instructions: SV/SVSIM SOM01.2+MA# 1859.1		Samples Transferred From Chain of Custody#
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Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2		

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
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Page 115 of 121

USEPA CLP Organics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7935 3008 3422

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498 No: 6-051012-171208-0011

Lab: A4 Scientific

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP2	Water/ Jose Flores		SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21)	6-474034 (Ice 4 C), 6- 474035 (Ice 4 C), 6- 474036 (Ice 4 C), 6- 474037 (Ice 4 C) (4)	MW-17	05/10/2012 12:19	MF5MP2	Field Sample
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Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1		Samples Transferred From Chain of Custody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2		

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Page 116 of 12

USEPA CLP Organics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7983 6076 7836

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498 No: 6-050912-223702-0002

Lab: A4 Scientific

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP3	Water/ Jose Flores	Grab	SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21)	6-474045 (Ice 4 C), 6- 474046 (Ice 4 C), 6- 474047 (Ice 4 C), 6- 474048 (Ice 4 C) (4)	MW-18	05/09/2012 17:37	MF5MP3	Field Sample
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Special Instructions: SV/SVSIM SOM01.2+MA#	‡ 1859.1		Samples Transferred From Chain of Custody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859	.1-SOM01.2	· .	

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Page 117 of 1.

USEPA CLP Organics COC (REGION COPY)

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1

DateShipped: 5/10/2012

CarrierName: FedEx AirbillNo: 7935 3027 3107

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site Case #: 42498 No: 6-051012-163408-0010

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Lab: A4 Scientific

Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	inorganic Sample #	Sample Type
Water/ Jose Flores	Grab	SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21)	6-474010 (Ice 4 C), 6- 474011 (Ice 4 C), 6-	MW-14-D	05/10/2012 09:05		Field Duplicate
			474012 (Ice 4 C), 6- 474013 (Ice 4 C) (4)	:			
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	Water/ Jose	Method Water/ Jose Grab	Method	Water/ Jose Flores Grab SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21) 6-474010 (Ice 4 C), 6- 474011 (Ice 4 C), 6- 474012 (Ice 4 C), 6- 474013 (Ice 4 C) (4)	Water/ Jose Flores Grab SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21) 6-474010 (Ice 4 C), 6- 474011 (Ice 4 C), 6- 474012 (Ice 4 C), 6- 474013 (Ice 4 C) (4) MW-14-D	Water/ Jose Flores Grab SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21), SV/SVSIM(21) 6-474010 (Ice 4 C), 6- 474011 (Ice 4 C), 6- 474012 (Ice 4 C), 6- 474013 (Ice 4 C) (4) MW-14-D MW-14-D 05/10/2012 09:05	Method Location Sample #

Analysis Key: SV/S	SVSIM=SV/SVSIM-M/	A#1859.1-SC	M01,2								
Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
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R&H OIL/TROPICANA ENERGY SITE GROUND WATER ANALYTE LIST – VOCs

	VOLATILE ORGA	NIC.COMP	DUNDS (VOC	(s)
		Extent E	valuation Co	mparison
	Constituent		Value a	
)	1,2-Dibromo-3-chloropropane	mg/L 2.00E-04	mg/L 0.00020	μg/L 0.20
· · · · · ·	1,2-Dibromoethane	5.00E-05	0.00020	0.05
	1,2-Dichlorobenzene	6.00E-01	0.60000	600.00
. /	1,2-Dichloroethane	5.00E-03	0.00500	5.00
	1,2-Dichloropropane	5.00E-03	0.00500	5.00
MA	1,3,5-Trimethylbenzene	2.50E-02	0.00500	25.00
, , , , , , , , , , , , , , , , , , ,	1,3-Dichlorobenzene	7.30E-01	0.73000	730.00
MA WM		9.10E-03	0.00910	9.10
MIL A.	1,4-Dichlorobenzene	7.50E-02	0.07500	75.00
MA	2,2-Dichloropropane	1.30E-02	0.01300	13.00
NUT.	2-Butanone	1.50E+01	15.00000	15000.00
MA	2-Chlorotoluene	4.90E-01	0.49000	490.00
	2-Hexanone	1.20E-01	0.12000	120.00
MA	4-Chlorotoluene	1.70E+00	1.70000	1700.00
· ✓	4-Methyl-2-pentanone	2.00E+00	2.00000	2000.00
	Acetone	2.20E+01	22.00000	22000.00
✓	Benzene.	5.00E-03	0.00500	5.00
MA	Bromobenzene	2.00E-01	0.20000	200.00
	Bromodichloromethane	2.10E-03	0.00210	2.10
	Bromoform	1.20E-01	0.12000	120.00
· V	Bromomethane	2.00E-02	0.02000	20.00
/	Carbon disulfide	5.60E-01	0.56000	560.00
	Carbon tetrachloride	5.00E-03	0.00500	5.00
	Chlorobenzene	1.00E-01	0.10000	100.00
1	Chloroethane	9.80E+00	9.80000	9800.00

,	VOLATILE ORGA	NIC COMP	OUNDS (VOC	(S)
		- Extent I	valuation Co	mparison
	Constituent	Carried State of Carrie	Value	
•		mg/L	mg/L	μg/L
ν	Chloroform	8.00E-02	0.08000	80.00
√	Chloromethane	6.70E-03	0.00670	6.70
V	cis-1,2-Dichloroethene	7.00E-02	0.07000	70.00
V	cis-1,3-Dichloropropene	1.70E-03	0.00170	1.70
V	Dibromochloromethane (chlorodibromomethane)	3.20E-03	0.00320	3.20
MA	Dibromomethane	1.20E-01	0.12000	120.00
V	Dichlorodifluoromethane	1.40E-02	0.01400	14.00
. 0	Ethylbenzene	7.00E-01	0.70000	700.00
SVOC	Hexachlorobutadiene	3.30E-04	0.00033	0.33
/	Isopropylbenzene (Cumene)	8.40E-03	0.00840	8.40
NO.	Methyl iodide (iodomethane)	-3.40E-02	0.03400	34.00
1	Methylene chloride	5.00E-03	0.00500	5.00
Sunc	Naphthalene	1.50E-01	0.15000	150.00
MA	n-Butylbenzene	2.60E-01	0.26000	260.00
W	n-Propylbenzene	3.20E-01	0.32000	320.00
MA	p-Isopropyltoluene	2.40E+00	2.40000	2400.00
AM	sec-Butylbenzene	2.50E-01	0.25000	250.00
V	Styrene	1.00E-01	0.10000	100.00
	tert-Butyl methyl ether			
	(MTBE)	2.40E-01	0.24000	240.00
MA	tert-Butylbenzene	2.90E-01	0.29000	290.00
	Tetrachloroethene	5.00E-03	0.00500	5.00
	Toluene	1.00E+00	1.00000	1000.00
/	trans-1,2-Dichloroethene	1.00E-01	0.10000	100.00
. 🗸	trans-1,3-Dichloropropene	9.10E-03	0.00910	9.10
/	Trichloroethene	5.00E-03	0.00500	5.00
	Trichlorofluoromethane	1.80E-01	0.18000	180.00
	Vinyl chloride	2.00E-03	0.00200	2.00
	Xylenes (total)	1.00E+01	10.00000	10000.00

SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)					
	Extent	Evaluation C	omparison =		
Constituent		Value			
TO THE RESERVE OF THE PROPERTY	mg/L	mg/L	i μg/L		
Benzo(a)anthracene	1.30E-03	0.00130	1.30		
Benzo(a)pyrene	2.00E-04	0.00020	0.20		
Benzo(b)fluoranthene	1.30E-03	0.00130	1.30		
Benzo(g,h,i)perylene	7.30E-01	0.73000	730.00		
Benzo(k)fluoranthene	1.30E-02	0.01300	13.00		
Benzyl alcohol	2.40E+00	2.40000	2400.00		
Bis(2-Chloroethoxy)methane	8.30E-04	0.00083	0.83		
Bis(2-Chloroethyl)ether	8.30E-04	0.00083	0.83		
Bis(2-Chloroisopropyl)ether7	1.30E-02	0.01300	13.00		
Bis(2-Ethylhexyl)phthalate	6.00E-03	0.00600	6.00		
Butyl benzyl phthalate	4.80E-01	0.48000	480.00		
Chrysene	1.30E-01	0.13000	130.00		
Dibenz(a,h)anthracene	2.00E-04	0.00020	0.20		
Dibenzofuran	9.80E-02	0.09800	98.00		
Diethyl phthalate	2.00E+01	20.00000	20000.00		
Dimethyl phthalate	2.00E+01	20.00000	20000.00		
Di-n-butyl phthalate	2.40E+00	2.40000	2400.00		
Di-n-octyl phthalate	4.90E-01	0.49000	490.00		
Fluoranthene	9.80E-01	0.98000	980.00		
Fluorene	9.80E-01	0.98000	980.00		
Hexachlorobenzene	1.00E-03	0.00100	1.00		
Hexachlorocyclopentadiene	5.00E-02	0.05000	50.00		
Hexachloroethane	3.80E-03	0.00380	3.80		
Indeno(1,2,3-cd)pyrene	1.30E-03	0.00130	1.30		
Isophorone	9.60E-01	0.96000	960.00		
Nitrobenzene	4.90E-02	0.04900	49.00		
n-Nitrosodi-n-propylamine	1.30E-04	0.00013	0.13		
Pentachlorophenol	1.00E-03	0.00100	1.00		
Phenanthrene	7.30E-01	0.73000	730.00		
Phenol	7.30E+00	7.30000	7300.00		
Pyrene	7.30E-01	0.73000	730.00		

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R&H OIL/TROPICANA ENERGY SITE GROUND WATER ANALYTE LIST – SVOCs

SEMI-VOLATILE OF	RGANIE CON	IPOUNDS (S	V0(Es)
	= 2Extent !	Evaluation Co	mpanisona
Constituent		Value_	
	mg/L	mg/L	μg/Ib.
2,4,5-Trichlorophenol	2.40E+00	2.40000	2400.0
2,4,6-Trichlorophenol	2.40E-02	0.02400	24.0
2,4-Dichlorophenol	7.30E-02	0.07300	73.0
2,4-Dimethylphenol	4.90E-01	0.49000	490.0
2,4-Dinitrophenol	4.90E-02	0.04900	49.0
2,4-Dinitrotoluene	1.30E-03	0.00130	1.3
2,6-Dinitrotoluene	1.30E-03	0.00130	1,3
2-Chloronaphthalene	2.00E+00	2.00000	2000.0
2-Chlorophenol	1.20E-01	0.12000	120.0
2-Methylnaphthalene	9.80E-02	0.09800	98.0
2-Nitroaniline	7.30E-03	0.00730	7.3
2-Nitrophenol	4.90E-02	0.04900	49.0
3,3'-Dichlorobenzidine	2.00E-03	0.00200	2.0
3-Nitroaniline	7.30E-03	0.00730	7.3
4,6-Dinitro-2-methylphenol	2.40E-03	0.00240	2.4
4-Bromophenyl phenyl ether	6.10E-05	0.00006	0.0
4-Chloro-3-methylphenol	1.20E-01	0.12000	120.0
4-Chloroaniline	4.60E-03	0.00460	4.6
4-Chlorophenyl phenyl ether	6.10E-05	0.00006	0.0
Cresol, p- (4-methylphenol)	1.20E-01	0.12000	120.0
4-Nitroaniline	4.60E-02	0.04600	46.0
4-Nitrophenol	4.90E-02	0.04900	49.0
Acenaphthene	1.50E+00	1.50000	1500.0
Acenaphthylene	1.50E+00	1.50000	1500.0
Aniline	1.60E-01	0.16000	160.0
Anthracene	7.30E+00	7.30000	7300.0

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 6 HOUSTON BRANCH 10625 FALLSTONE RD. HOUSTON, TEXAS 77099

July 18, 2012

MEMORANDUM

SUBJECT:	Contract Lab	poratory Program Data Review
FROM:	The state of the s	ores, Alternate ESAT Regional Project Officer tal Services Branch (6MD-HL)
то:	Chris Villarr	eal, Superfund Project Manager (6SF-RA)
	Site:	R&H OIL/TROPICANA
	Case#:	42498
	SDG#:	MF5MP0

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6 10625 Fallstone Road Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE:

July 16, 2012

TO:

Marvelyn Humphrey, ESAT PO, Region 6 EPA

FROM:

Tseng-Ying Fan, Data Reviewer, ESAT

THRU:

Dominic G. Jarecki, ESAT Program Manager, ESATIO67

SUBJECT:

CLP Data Review

Contract No.:

EP-W-06-030

TO No.:

030 2-12

Task/Sub-Task: ESAT Doc. No.:

B030-212-0045

TDF No.:

6-12-369B

ESAT File No.:

I - 0537

Attached is the data review summary for Case # 42498

SDG # MF5MP0

Site R & H Oil/Tropicana

COMMENTS:

I. LEVEL OF DATA REVIEW

Region 6 Standard Review was performed for this data package.

CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE II.

> The CCS and hardcopy review found the data package contractually compliant.

III. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

All results are acceptable.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 6

HOUSTON BRANCH 10625 FALLSTONE ROAD HOUSTON, TEXAS 77099

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO LABORATORY CONTRACT#_ SDG#_ SOW#_ SF#_	42498 A4 EP-W-09-035 MF5MP0 ISM01.3 303DD2MB	SITE R& H NO. OF SAMPLES MATRIX REVIEWER (IF NOT REVIEWER'S NAME COMPLETION DATE	Oil/Tropicana 5 Water ESB) ESAT Tseng-Ying Fan July 16, 2012	
SAMPLE NO.	MF5MP1 MF5MP2 MF5MP3	F5MP4 FA ASSESSMENT SUMM	ARY	
		ICP	HG	
6. ICP QC 7. LCS 8. SAMPLE 9. OTHER 10. OVERAL	RATIONS S S S S S S S S S S S S S S S S S S	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0	
M = I $Z = I$	Data had no prob Data qualified o Data unacceptab Not applicable.	due to major or mi	nor problems.	

ACTION ITEMS:

AREAS OF CONCERN:

COMMENTS/CLARIFICATIONS REGION 6 CLP QA REVIEW

CASE 42498 SDG MF5MP0 SITE R & H Oil/Tropicana LAB A4

COMMENTS: This SDG consisted of five water samples for total metals (by ICP-MS and ICP-AES) and mercury analyses following CLP SOW ISM01.3. The sampler designated sample MF5MP1 as the laboratory QC sample.

Region 6 Standard Review was performed for this package as requested by the TDF. The analytes of concern and the corresponding action levels are listed on page 14 of this report. Analytes of concern arsenic, cobalt, and/or manganese were reported at concentrations over the action levels in the samples. Samples MF5MP0, MF5MP1, and MF5MP4 were diluted 2X and reanalyzed because of high manganese concentrations. Sample MF5MP3 was diluted 5X and reanalyzed because of a high sodium concentration.

DATA ASSESSMENT: The QC problem affecting data usability is addressed below.

Because of laboratory blank readings, the antimony result <CRQL for sample MF5MP3 should be considered undetected and was flagged "U" at the CRQL on the DST.

OVERALL ASSESSMENT: All results are acceptable. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

The laboratory was contacted for three reporting issues (see Resubmission Request). The laboratory resubmission will not affect the DST, so the DST included in this report is the final version.

INORGANIC ACRONYMS

Computer-Aided Data Review and Evaluation CADRE Continuing Calibration Blank CCB CCS Contract Compliance Screening CCV Continuing Calibration Verification CN Cyanide Contract Required Quantitation Limit CROL Complete SDG File CSF DST Data Summary Table HG Mercury Initial Calibration Blank ICB TCP Inductively Coupled Plasma Inductively Coupled Plasma-Atomic Emission Spectroscopy ICP-AES ICP-MS Inductively Coupled Plasma-Mass Spectrometry Interference Check Sample ICS Initial Calibration Verification ICV IS Internal Standard LCS Laboratory Control Sample MDL Method Detection Limit NFG National Functional Guidelines Performance Evaluation PE &D Percent Difference Percent Recovery 8R Percent Relative Intensity %RI &RSD Percent Relative Standard Deviation Quality Assurance OA Quality Control QC OL Ouantitation Limit RPD Relative Percent Difference RSCC Regional Sample Control Center SDG Sample Delivery Group SMO Sample Management Office

SOW

SOL

TAL

Statement of Work

Target Analyte List

Sample Ouantitation Limit

INORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

- U Not detected at reported quantitation limit.
- L Reported concentration is between the MDL and the CRQL.
- J Result is estimated because of outlying quality control parameters such as matrix spike, serial dilution, etc., or the result is below the CRQL.
- R Result is unusable.
- F A possibility of a false negative exists.
- UC Reported concentration should be used as a raised quantitation limit because of blank effects and/or laboratory or field contamination.
- + High biased. Actual concentration may be lower than the concentration reported.
- Low biased. Actual concentration may be higher than the concentration reported.
- W The result should be used with caution. The result was reported on a dry weight basis although the sample did not conform to the EPA Office of Water definition of a soil sample because of its high water content (>70% moisture).

Case No.: 42498

SDG: MF5MP0

Reviewer: T. Fan

Laboratory: A4

Matrix: Water

Units:

ug/L

EPA SAMPLE No.		MF5MP0	
STATION LOCATION		MW-14	
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	22.3	
Arsenic	1.0	374	
Barium	10.0	443	
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	120000	
Chromium	2.0	0.56	LJ
Cobalt	1.0	7.7	-
Copper	2.0	0.64	LJ
Iron	100	13300	
Lead	1.0	8.8	
Magnesium	5000	14300	
Manganese	2.0	1130	
Mercury	0.20	0.044	LJ
Nickel	1.0	7.2	
Potassium	5000	1060	LJ
Selenium	5.0	17.4	
Silver	1.0	1.0	U
Sodium .	5000	222000	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	2.4	

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Case No.: 42498

SDG: MF5MP0

Reviewer: T. Fan

Laboratory: A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		MF5MP1	
STATION LOCATION		MW-16	
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	2.0	U
Arsenic	1.0	176	
Barium	10.0	341	50
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	104000	1 100
Chromium	2.0	0.50	LJ
Cobalt	1.0	1.2	
Copper	2.0	2.0	U
Iron	100	12500	
Lead	1.0	1.0	U
Magnesium	5000	11400	L C
Manganese	2.0	1140	
Mercury	0.20	0.054	LJ
Nickel	1.0	3.1	
Potassium	5000	1040	LJ
Selenium	5.0	9.4	
Silver	1.0	1.0	U
Sodium	5000	179000	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	1.3	LJ

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.: 42498

SDG: MF5MP0

Reviewer: T. Fan

Laboratory: A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		MF5MP2	
STATION LOCATION		MW-17	
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	2.0	U
Arsenic	1.0	27.1	
Barium	10.0	114	
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	119000	
Chromium	2.0	2.0	U
Cobalt	1.0	1.3	
Copper	2.0	2.0	U
Iron	100	1900	
Lead	1.0	0.27	LJ
Magnesium	5000	9090	
Manganese	1.0	496	4
Mercury	0.20	0.10	LJ
Nickel	1.0	1.5	
Potassium	5000	1510	LJ
Selenium	5.0	1.2	LJ
Silver	1.0	1.0	U
Sodium	5000	65800	1
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	0.80	LJ

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.: 42498

SDG: MF5MP0

Reviewer: T. Fan

Laboratory: A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		MF5MP3		
STATION LOCATION		MW-18	V-18	
Analyte	ADJ CRQL	RESULT	FLAG	
Aluminum	200	200	U	
Antimony	2.0	2.0	U	
Arsenic	1.0	148		
Barium	10.0	381	100	
Beryllium	1.0	1.0	U	
Cadmium	1.0	1.0	U	
Calcium	5000	90800		
Chromium	2.0	0.55	LJ	
Cobalt	1.0	2.8	1.0	
Copper	2.0	1.4	LJ	
Iron	100	7710		
Lead	1.0	5.0		
Magnesium	5000	20000		
Manganese	1.0	930		
Mercury	0.20	0.036	LJ	
Nickel	1.0	5.1		
Potassium	5000	1200	LJ	
Selenium	5.0	12.8		
Silver	1.0	1.0	U	
Sodium	25000	908000		
Thallium	1.0	1.0	U	
Vanadium	5.0	5.0	U	
Zinc	2.0	1.5	LJ	

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

Case No.: 42498

SDG: MF5MP0

Reviewer: T. Fan

Laboratory: A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.		MF5MP4	115
STATION LOCATION		MW-14-D	MALE
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	20.8	
Arsenic	1.0	377	
Barium	10.0	422	1 100
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	117000	
Chromium	2.0	0.52	LJ
Cobalt	1.0	7.8	
Copper	2.0	0.60	LJ
Iron	100	12700	
Lead	1.0	8.4	
Magnesium	5000	13900	
Manganese	2.0	1170	L MILINE
Mercury	0.20	0.056	LJ
Nickel	1.0	7.4	
Potassium	5000	5000	U
Selenium	5.0	16.2	
Silver	1.0	1.0	U
Sodium	5000	217000	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	2.7	

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

EPA Lab ID: A4		ORIGINALS	YES	NO	N/A
Lab location: The Woodlands, TX		CUSTODY SEALS	120	110	13/2
	DO INTERNADO		x		
Region: 6 Audit No.: 4249 Resubmitted CSF? Yes	08/MF5MP0 No X	Present on package? Intact upon receipt?	X		
Box No(s): 1		FORM DC-2	_ ^	-	+-
COMMENTS:		3. Numbering scheme accurate?	X		
		4. Are enclosed documents listed?	Х		
		5. Are listed documents enclosed?	X		
		FORM DC-1		41	
	6. Present?	X	-	_	
	7. Complete?	X			
	8. Accurate?	X	1003		
		TRAFFIC REPORT/CHAIN-OF-CUSTODY RECORD(s)			
		9. Signed?	X		
		10. Dated?	X		
		AIRBILLS/AIRBILL STICKER	8 14		
		11. Present?	X	G.F.	
		12. Signed?	X		
		13. Dated?	Х		
		SAMPLE TAGS 14. Does DC-1 list tags as being included?	X		
		15. Present?	X		
		OTHER DOCUMENTS 16. Complete?	X		
		17. Legible?	X		
		18. Original?	х		
Over for additional comments.		18a. If "NO", does the copy indicate where original documents are located?			X

	17. Legible?	X		
	18. Original?	X	100	
Over for additional comments.	18a. If "NO", does the copy indicate where original documents are located?	- 1		Х
Audited Audited	Tseng-Ying Fan/ESAT Data Reviewer	Date Date	07/12/	12
Signature	Printed Name/Title			
	DC-2_			

In Reference To Case No(s):
42498 SDG: MF5MP0 (I-0537)

Contract Laboratory Program REGIONAL/LABORATORY COMMUNICATION SYSTEM

Resubmission Request

Laboratory Name:

A4

Lab Contact:

Region:

Regional Contact:

ESAT Reviewer:

A4

Laxmi Teerupalli

6

Raymond Flores - EPA

Tseng-Ying Fan - ESAT

In reference to data for the following fractions:

ICP-AES

ICP-MS

Mercury

Summary of Questions/Issues:

A. ICP-AES

Form 3s (pp. 36 & 37): The method code for all analytes should be "P". Please correct and resubmit these pages.

B. ICP-MS

The serial dilution results reported on the Form 8 on p. 49 were not corrected for the 5X dilution, causing the unnecessary "E"-flagging of the arsenic and barium results on this form and all Form 1s. The associated Form 13 (p. 68) also had an incorrect dilution factor for the serial dilution sample. Please correct and resubmit all affected forms.

C. Mercury

The ICB and many CCBs had negative mercury concentrations with absolute values greater than or equal to the MDL. However, instead of reporting the negative concentrations as required by the SOW (ISM01.3, p. B-27, sec. 3.4.4.2.8), the analyst reported non-detect results on the Form 3s. Please correct and resubmit the Form 3s (pp. 28 - 30).

NOTE: Any submitted laboratory resubmission should be clearly marked as "Additional Data" with a cover letter included describing what data is being delivered, which Case the data pertains, and who requested the data (ISM01.3, p. B-8, sec. 2.2.1). Custody seals are required for all such shipments. Please respond to the above item within 6 business days (ISM01.3, p. B-8, sec. 2.2) by e-mail to Flores.Raymond@epa.gov and by regular mail to:

Mr. Raymond Flores
U.S. EPA Region 6 Laboratory
10625 Fallstone Road
Houston, TX 77099

If you have any questions, please contact Mr. Flores at 281-983-2139.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

Page 1 of 1

USEPA CLP Inorganics COC (REGION COPY)

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

No: 6-050912-230237-0003 Lab: A4 Scientific

DateShipped: 5/10/2012 CarrierName: FedEx

Case #: 42498

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

AirbillNo: 7983 6057 4464

Inorganic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Organic Sample #	Sample Type
MF5MP0	Water/ Jose Flores	Grab TM+HG(21)		6-474014 (HNO3 pH<2) (1)	MW-14	05/10/2012 09:05	F5MP0	Field Sample
MF5MP1	Water/ Jose Flores	Grab	TM+HG(21), TM+HG(21)	6-474026 (HNO3 pH<2), 6-474027 (HNO3 pH<2) (2)	MW-16	05/10/2012 07:35	F5MP1	Field Sample
MF5MP2	Water/ Jose Flores	Grab	TM+HG(21)	6-474038 (HNO3 pH<2) (1)	MW-17	05/10/2012 12:19	F5MP2	Field Sample
MF5MP3	Water/ Jose Flores	Grab	TM+HG(21)	6-474049 (HNO3 pH<2) (1)	MW-18	05/09/2012 17:37	F5MP3	Field Sample
MF5MP4	Water/ Jose Flores	Grab	TM+HG(21)	6-474015 (HNO3 pH<2) (1)	MW-14-D	05/10/2012 09:05	31	Field Duplicate
- m			170					
							-	

Sample(s) to be used for Lab QC: MF5MP1 - Special Instructions: Total metals+Hg by ISM01.3, ICP-AES+ICP-MS	Shipment for Case Complete? Y
ICP-MS for TM+Hg= Sb/As/Ba/Be/Cd/Cr/Co/Cu/Pb/Mn/Ni/Se/Ag/TI/V/Zn	Samples Transferred From Chain of Custody #
ICP-AES for TM= AI/Ca/Fe/Mg/K/Na	
Constitution of the Consti	

Analysis Key: TM+HG=TM + Hg-ISM01.3,ICP-MS+ICP-AES

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	An Hou	540-12	19. 3								
				128		1				E 8	
										- =	

R&H OIL/TROPICANA ENERGY SITE GROUND WATER ANALYTE LIST – TOTAL METALS

	TOTAL MET	ALS			
Constituent	Extent Ev	aluation Comparison Value			
	mg/L	mg/L	μg/L		
Aluminum	2.40E+01	24.00000	24000.00		
Arsenic	1.00E-02	0.01000	10.00		
Barium	2.00E+00	2.00000	2000.00		
Chromium	1.00E-01	0.10000	100.00		
Cobalt	7.30E-03	0.00730	7.30		
Copper	1.30E+00	1.30000	1300.00		
Lead	1.50E-02	0.01500	15.00		
Manganese	1.10E+00	1.10000	1100.00		
Mercury	6.80E-04	0.00068	0.68		
Nickel	4.90E-01	0.49000	490.00		
Selenium	5.00E-02	0.05000	50.00		
Thallium	2.00E-03	0.00200	2.00		
Vanadium	1.70E-03	0.00170	1.70		
Zinc	7.30E+00	7.30000	7300.00		